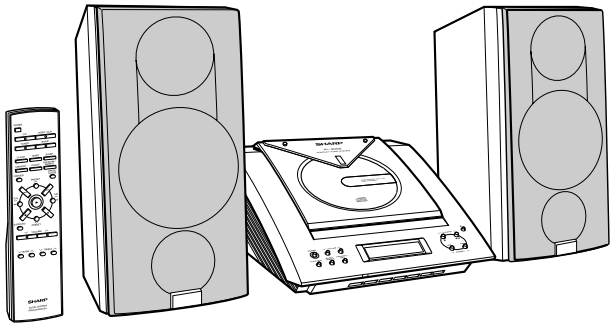
SHARP SERVICE MANUAL

No. S4122XL3000U/

COMPACT AUDIO SYSTEM



MODEL XL-3000

XL-3000 Compact Audio System consisting of XL-3000 (main unit) and CP-XL3000U (speaker system).

MODEL XL-3000C

XL-3000C Compact Audio System consisting of XL-3000C (main unit) and CP-XL3000U (speaker system).

• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

COMPACT disc DIGITAL AUDIO

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

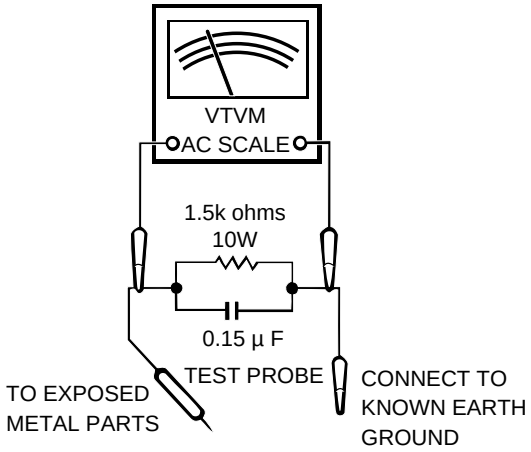
FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

IMPORTANT SERVICE NOTES (FOR U.S.A. ONLY)

BEFORE RETURNING THE AUDIO PRODUCT
(Fire & Shock Hazard)
Before returning the audio product to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the audio product.
2. Inspect all protective devices such as insulating materials, cabinet, terminal board, adjustment and compartment covers or shields, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

* Plug the AC line cord directly into a 120 volt AC outlet.
* Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as conduit or electrical ground connected to earth ground.
* Use a VTVM or VOM with 1000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See diagram).
* Connect the resistor connection to all exposed metal parts having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.



All check must be repeated with the AC line cord plug connection reversed.
Any reading of 0.3 volt RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the audio product to the owner.

SPECIFICATIONS

■ General

Power source	AC 120 V, 60 Hz
Power consumption	45 W
Dimensions	Width: 9-1/16" (230 mm) Height: 5-1/16" (128 mm) Depth: 11-9/16" (293 mm)
Weight	6.6 lbs. (3.0 kg)

■ Amplifier

Output power (For U.S.A)	16 watts minimum RMS per channel into 6 ohms from 100 Hz to 20 kHz, 10% total harmonic distortion
Output power (For CANADA)	RMS: 40W (20W + 20W) (10% T.H.D.)
Output terminals	Speakers: 6 ohms Headphones: 16 - 50 ohms (recommended: 32 ohms) CD digital output (optical) Subwoofer (Audio signal): 500 mV/47 kohms
Input terminals	Video/Auxiliary (audio signal): 500 mV/47 kohms

Specifications for this model are subject to change without prior notice

■ CD player

Type	Compact disc player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	1-bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 dB (1 kHz)

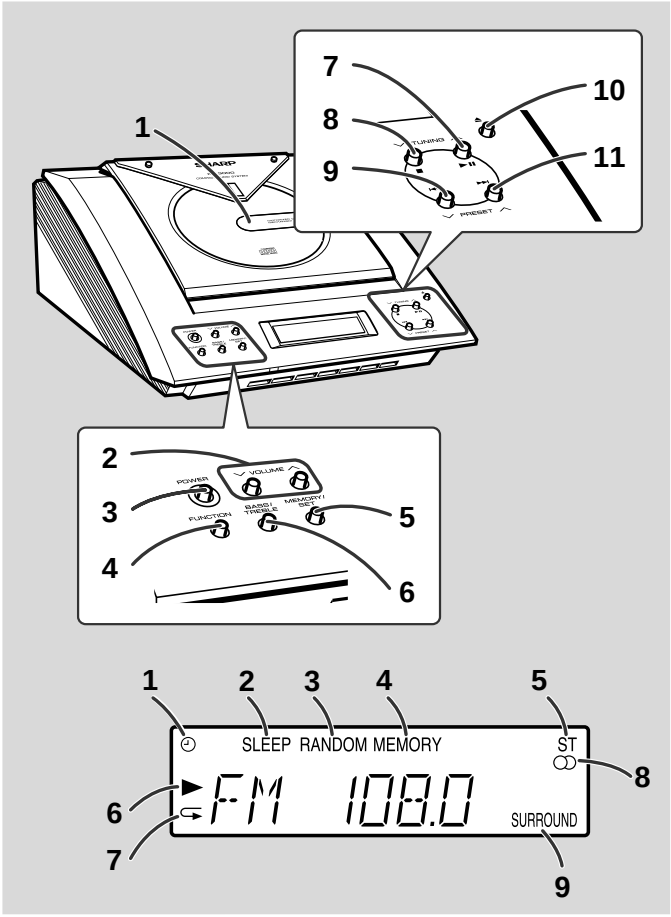
■ Tuner

Frequency range	FM: 87.5 - 108 MHz AM: 530 - 1,720 kHz

■ Speaker

Type	2-way type speaker system 2" (5 cm) Tweeter 4" (10 cm) Woofer
Maximum input power	40 W
Rated input power	20 W
Impedance	6 ohms
Dimensions	Width: 5-9/16" (140 mm) Height: 11-3/8" (288 mm) Depth: 7-3/8" (187 mm)
Weight	4.9 lbs. (2.2 kg)/each

NAMES OF PARTS

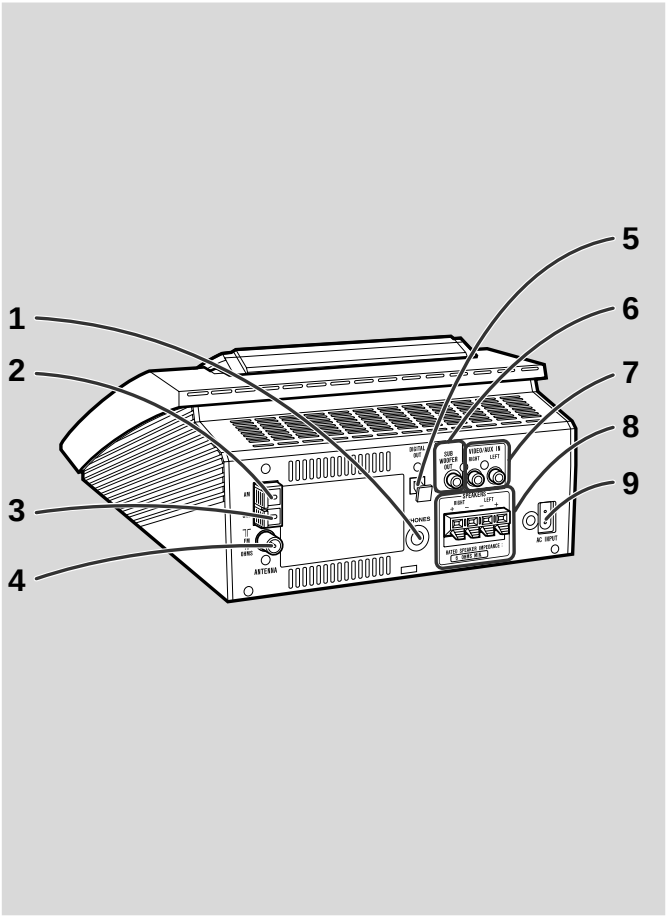


■ Front panel

1. CD Compartment
2. Volume Up and Down Buttons
3. Power Button
4. Function Selector Button
5. Memory/Set Button
6. Bass/Treble Selector Button
7. CD Play or Pause, Tuning Up Button
8. CD Stop, Tuning Down Button
9. CD Track Down or Fast Reverse, Tuner Preset Down Button
10. CD Open/Close Button
11. CD Track Up or Fast Forward, Tuner Preset Up Button

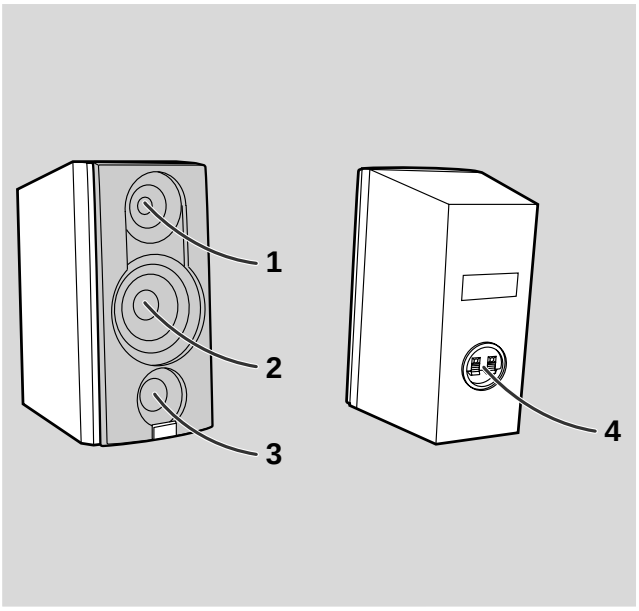
■ Display

1. Timer Play Indicator
2. Sleep Indicator
3. CD Random Play Indicator
4. Memory Indicator
5. FM Stereo Mode Indicator
6. CD Play Indicator
7. CD Repeat Play Indicator
8. FM Stereo Receiving Indicator
9. Surround Indicator



■ Rear panel

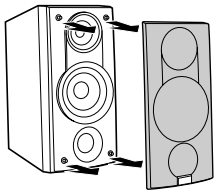
1. Headphone Jack
2. AM Antenna Terminal
3. Antenna Earth Terminal
4. FM 75 Ohms Antenna Jack
5. CD Digital Output Jack
6. Subwoofer Output Jack
7. Video/Auxiliary (Audio Signal) Input Jacks
8. Speaker Terminals
9. AC Power Input Jack



■ Speaker system

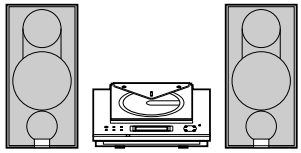
1. **Tweeter**
2. **Woofer**
3. **Bass Reflex Duct**
4. **Speaker Terminals**

Speaker grilles are removable:
Make sure nothing comes into contact with the speaker diaphragms when you remove the speaker grilles.



Placing the speaker system:
There is no distinction between the right and the left speakers.

Left speaker **Right speaker**



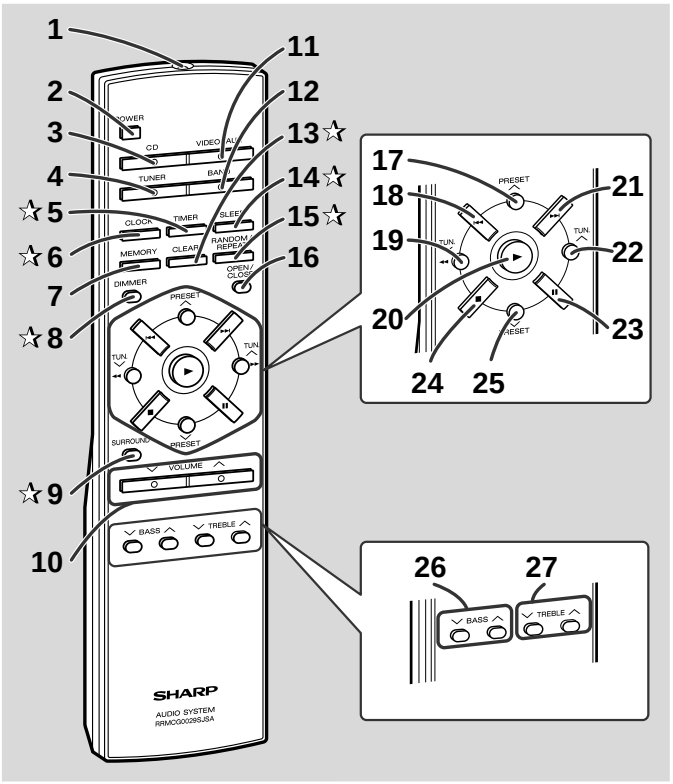
Notes:

- The speakers are magnetically shield.
  Therefore, they do not affect the display even if you use them near the TV. However, some color variation may occur, depending on the type of TV used.

  If color variation occurs...
  Turn off the TV (from the power switch).
  After 15 - 30 minutes, turn the TV on again.

  If the color variation is still present...
  Move the speakers further away from the TV.

- If any kind of magnet or an electromagnet is placed too close to the TV and the system, irregular colors may appear on the TV screen.



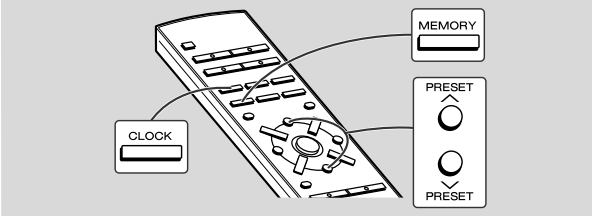
Buttons with "☆" mark in the illustration can be operated on the remote control only.
Other buttons can be operated both on the main unit and the remote control.

■ Remote control

1. Remote Control Transmitter
2. Power Button
3. CD Button
4. Tuner Button
5. **Timer Button**
6. **Clock Button**
7. Memory Button
8. **Dimmer Button**
9. **Surround Button**
10. Volume Up and Down Buttons
11. Video/Auxiliary Button
12. Band Selector Button
13. **Clear Button**
14. **Sleep Button**
15. **Random/Repeat Button**
16. CD Open/Close Button
17. Tuner Preset Up Button
18. CD Track Down Button
19. CD Fast Reverse, Tuning Down Button
20. CD Play Button
21. CD Track Up Button
22. CD Fast Forward, Tuning Up Button
23. CD Pause Button
24. CD Stop Button
25. Tuner Preset Down Button
26. Bass Up and Down Buttons
27. Treble Up and Down Buttons

OPERATION MANUAL

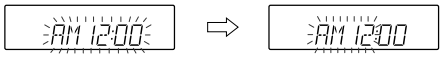
Setting the Clock



This may be operated only with the remote control.
In this example, the clock is set for the 12-hour (AM 12:00) display.

1 **Press the CLOCK button and within 3 seconds, press the MEMORY button.**

2 **Within 1 minute, press the PRESET (∨ or ∧) button to select 12-hour or 24-hour display and then press the MEMORY button.**



"AM 12:00" → The 12-hour display will appear.
(AM 12:00 - PM 11:59)
"0:00" → The 24-hour display will appear.
(0:00 - 23:59)

Note that this can only be set when the unit is first installed or it has been reset.

3 **Within 1 minute, press the PRESET (∨ or ∧) button to adjust the hour and then press the MEMORY button.**

- When the 12-hour display is selected, "AM" will change automatically to "PM".

4 **Within 1 minute, press the PRESET (∨ or ∧) button to adjust the minutes and then press the MEMORY button.**

- The hour will not advance even if minutes advance from "59" to "00".
- The clock starts from "0" second. (Seconds are not displayed.)

To confirm the time display when the power is on:
Press the CLOCK button.
The time display will appear for about 5 seconds.

Note:
The time will flash at the push of the CLOCK button when the AC power supply is restored after a power failure or unplugging the unit. Readjust the clock as follows.

To readjust the clock:
Perform "Setting the Clock" from the beginning.

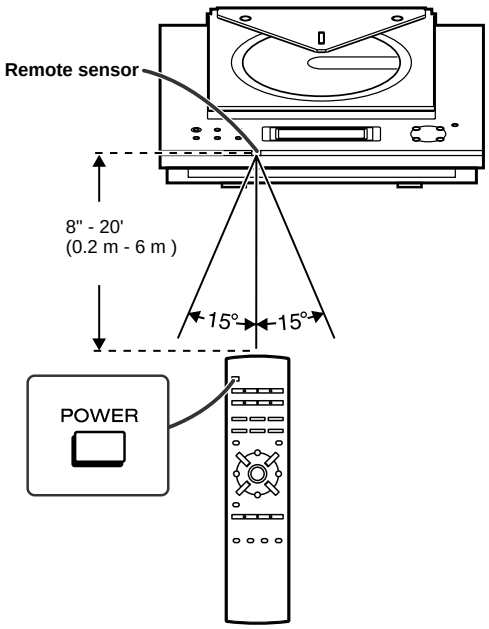
To change the 12-hour or 24-hour display:
1 Clear all the programmed contents.
2 Perform "Setting the Clock" from the beginning.

Remote Control

■ Test of the remote control

Check the remote control after checking all connections have been correctly.
Face the remote control directly to the remote sensor on the unit.

The remote control can be used within the range shown below:
Press the POWER button. Does the power turn on? Now, you can enjoy the music.



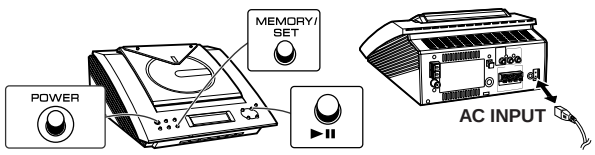
Troubleshooting Chart

■ If trouble occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

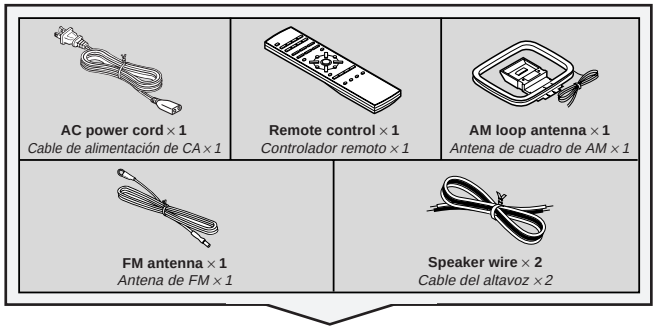
If such a problem occurs, do the following:

1 Set the unit to the stand-by mode and turn the power on again.
2 If the unit is not restored in step 1, unplug and plug in the unit, and then turn the power on.
3 If neither step 1 nor 2 restores the unit, do the following:
① Press the POWER button to enter the power stand-by mode.
② Unplug the AC power cord from the AC INPUT jack on the unit.
③ While pressing down the MEMORY/SET button and the ▶II button, plug the AC power cord into the AC INPUT jack on the unit.



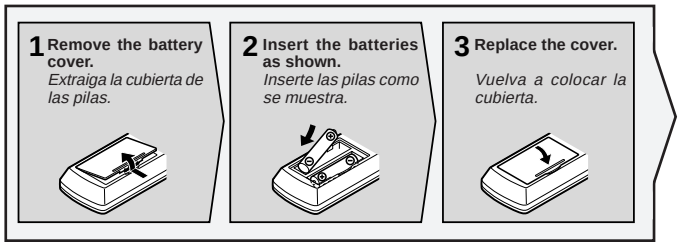
Caution:
This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD program.

1 Accessories
Accesorios

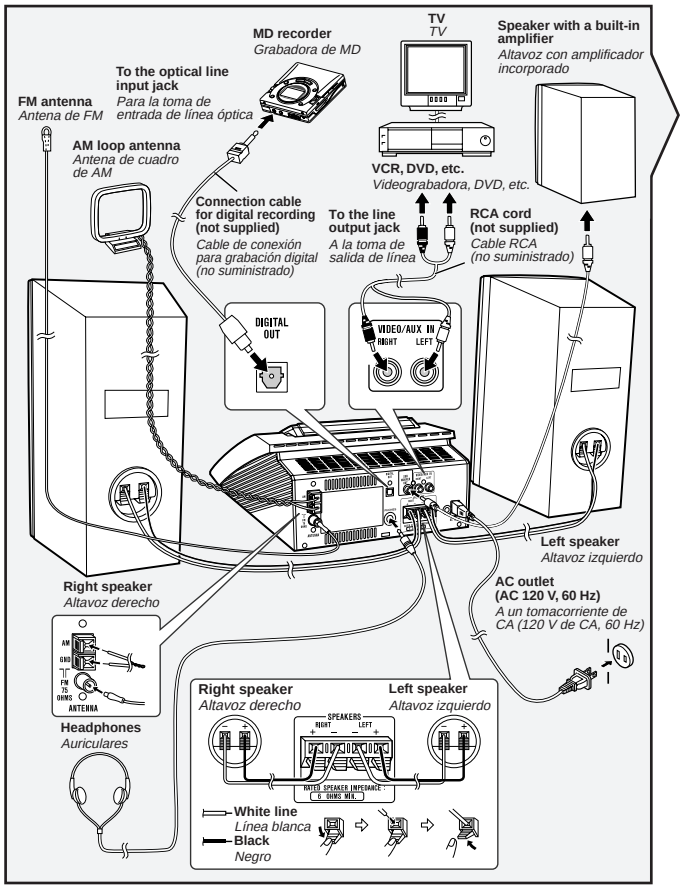

AC power cord × 1
Cable de alimentación de CA × 1
Remote control × 1
Controlador remoto × 1
AM loop antenna × 1
Antena de cuadro de AM × 1
FM antenna × 1
Antena de FM × 1
Speaker wire × 2
Cable del altavoz × 2

2 Battery installation of remote control
Instalación de las pilas del controlador remoto

Use 2 "AAA" size batteries (UM-4, R03, HP-16 or similar). **Batteries are not included.**
Use dos pilas del tamaño "AAA" (UM-4, R03, HP-16 o equivalentes). *Las pilas no están incluidas.*

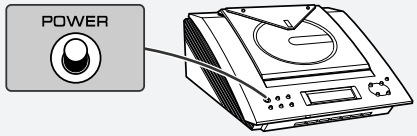

1 Remove the battery cover.
Extraiga la cubierta de las pilas.
2 Insert the batteries as shown.
Inserte las pilas como se muestra.
3 Replace the cover.
Vuelva a colocar la cubierta.

3 System connections
Conexiones del sistema

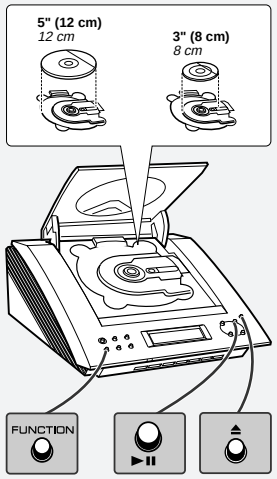


4 Turn on your system
Conexión de la alimentación de su sistema

Press the POWER button to turn the power on.
Pulse el botón POWER para conectar la alimentación.



Listening to a CD
Audición de un disco CD

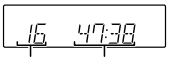


1 FUNCTION
Press the FUNCTION button until "CD STOP" or "NO DISC" appears on the display.
Pulse el botón FUNCTION hasta que "CD STOP" o "NO DISC" aparezca en el visualizador.

2 ⏏
Press the ⏏ button to open the CD compartment.
Pulse el botón ⏏ para abrir el compartimiento del CD.

3
Place a CD on the spindle, label side up.
Ponga un CD sobre el eje, con la cara de la etiqueta arriba.

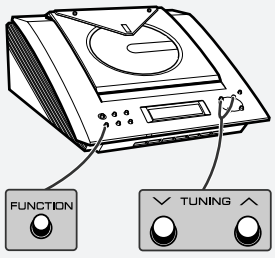
4 ⏏
Press the ⏏ button to close the CD compartment.
Pulse el botón ⏏ para cerrar el compartimiento del CD.



Total number of tracks
Número total de pistas
Total playing time
Tiempo total de reproducción

5 ►II
Press the ►II button to start playback from track 1.
Pulse el botón ►II para iniciar la reproducción desde la pista 1.

Listening to the radio
Audición de la radio



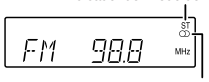
1 FUNCTION
Press the FUNCTION button until "FM" or "AM" appears on the display.
Pulse el botón FUNCTION hasta que "FM" o "AM" aparezca en el visualizador.

2 TUNING
Press the TUNING (∨ or ∧) button to tune in to the desired station.
When the TUNING button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.
Pulse el botón TUNING (∨ o ∧) para sintonizar la emisora deseada.
Cuando se pulse el botón TUNING durante más de 0,5 segundos, la exploración se iniciará automáticamente y el sintonizador se parará en la primera emisora difusora que pueda recibirse.

To receive an FM stereo transmission:
Press the FUNCTION button to display the "ST" indicator.
- **"ꝏ" will appear when an FM broadcast is in stereo.**

FUNCTION
Para recibir una transmisión de FM en estéreo:
Pulse el botón FUNCTION para visualizar el indicador "ST".
- *"ꝏ" aparecerá cuando una difusión de FM sea en estéreo.*

FM stereo mode indicator
Indicador del modo de FM en estéreo



FM stereo receiving indicator
Indicador de recepción de FM en estéreo

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Rear Panel/Terminal PWB	1. Screw ..... (A1) x7 2. Socket ..... (A2) x3 3. Screw ..... (A3) x4	7-1 7-1,2
2	Top Cabinet	1. Screw ..... (B1) x2 2. Hook ..... (B2) x5 3. Flat Cable ..... (B3) x1 4. Socket ..... (B4) x7	7-2
3	Tuner PWB	1. Screw ..... (C1) x2 2. Socket ..... (C2) x1	8-1
4	Power PWB	1. Socket ..... (D1) x1 2. Hook ..... (D2) x1	8-1
5	Main PWB	1. Socket ..... (E1) x1 2. Screw ..... (E2) x8	8-1
6	Display PWB	1. Screw ..... (F1) x4 2. Hook ..... (F2) x4	8-2
7	CD Mechanism	1. Screw ..... (G1) x4	8-2
8	Gear Box	1. Screw ..... (H1) x1 2. Holder ..... (H2) x1 3. Lever ..... (H3) x1 4. Screw ..... (H4) x2 5. Lever ..... (H5) x1	8-2
9	LED PWB	1. Screw ..... (J1) x1	8-2

Note:

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

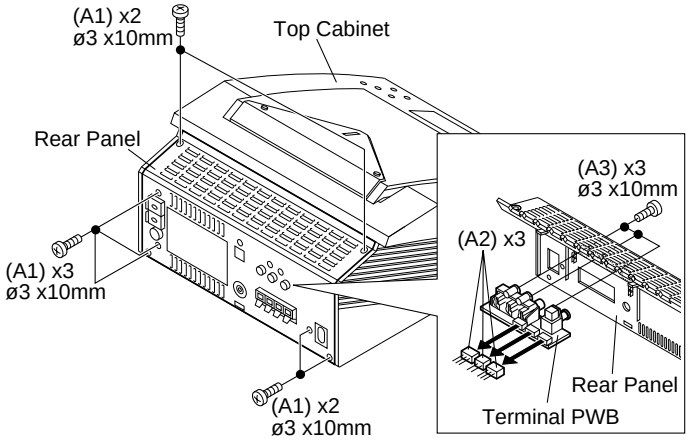


Figure 7-1

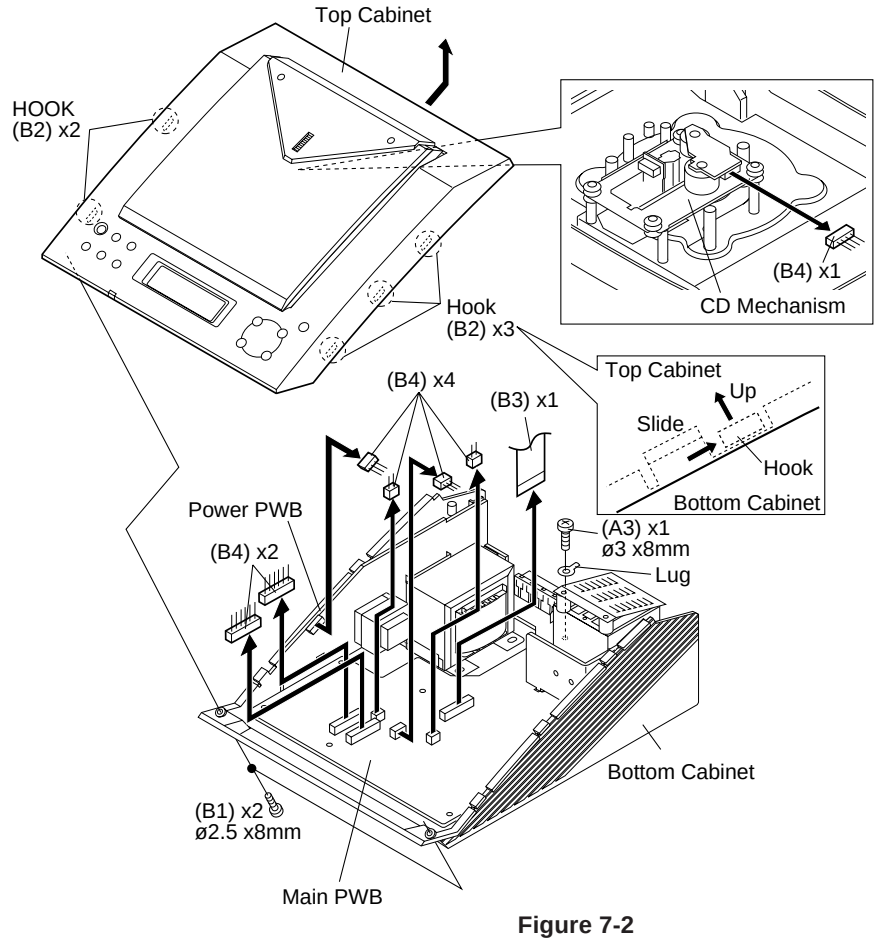


Figure 7-2

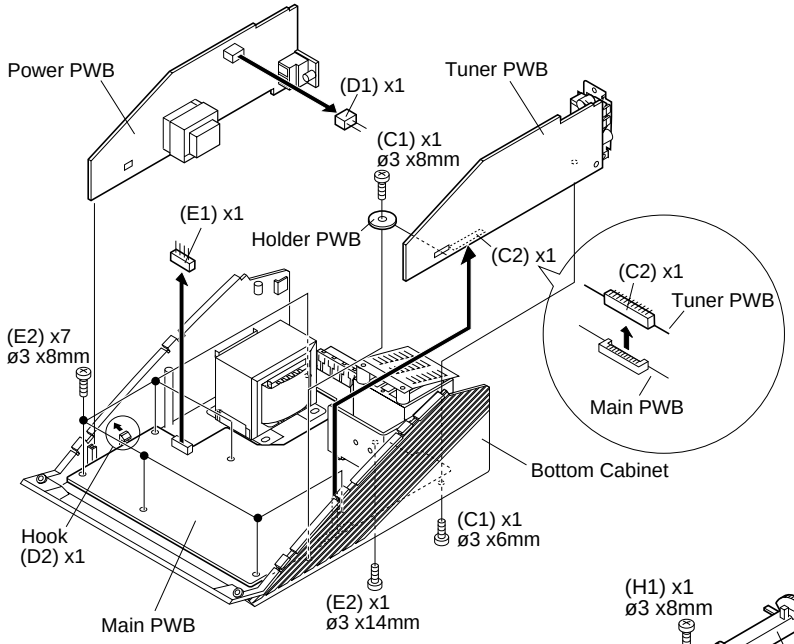


Figure 8-1

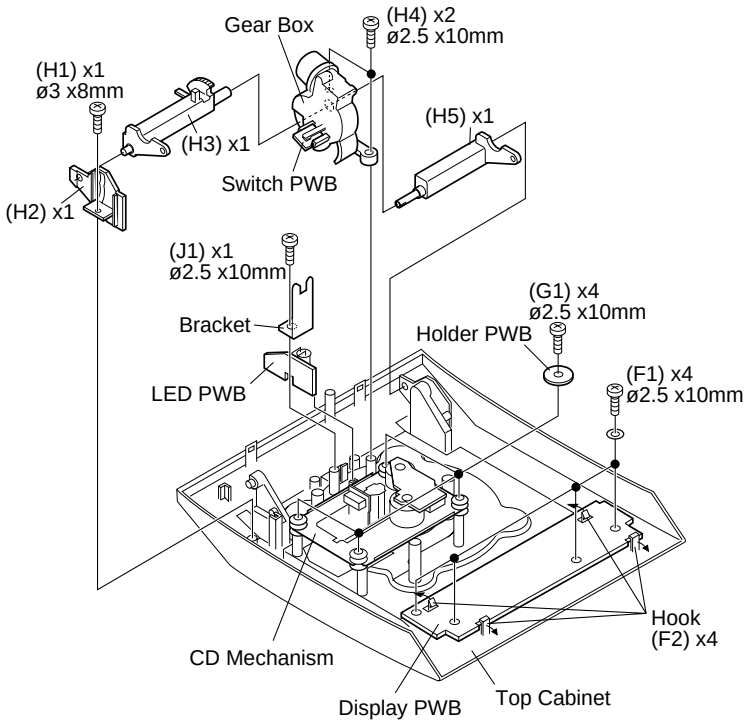


Figure 8-2

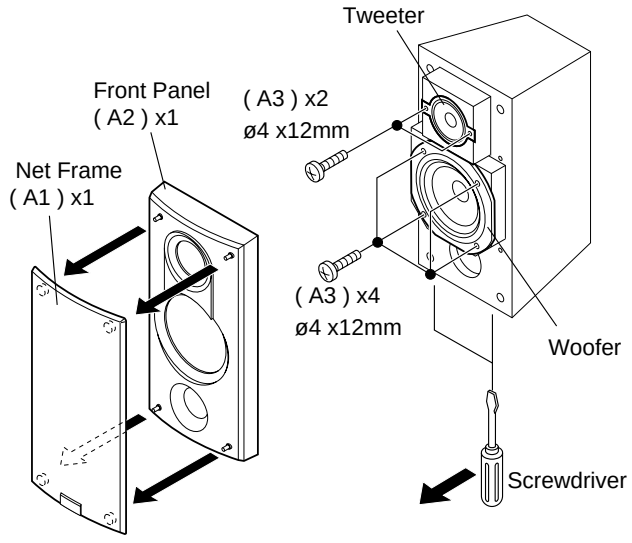


Figure 8-3

STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Net Frame ..... (A1) x1 2. Front Panel ..... (A2) x1 3. Screw ..... (A3) x6	8-3

REMOVING AND REINSTALLING THE MAIN PARTS

How to remove the CD lid (See Fig. 9-1.)

Perform steps 1,2 and 8 of the disassembly method to remove the gear box.(See page 7,8)

1. Remove the switch PWB.
2. Remove the screws (A1) x 4 pcs., to remove the gear box lid.
3. Remove the gears (A2) x 1 pc. and (A3) x 1 pc.
4. Remove the screws (A4) x 2 pcs., to remove the motor.

Caution:

Be careful so that the gear is not damaged.
(The damage gear emits noise during searching.)

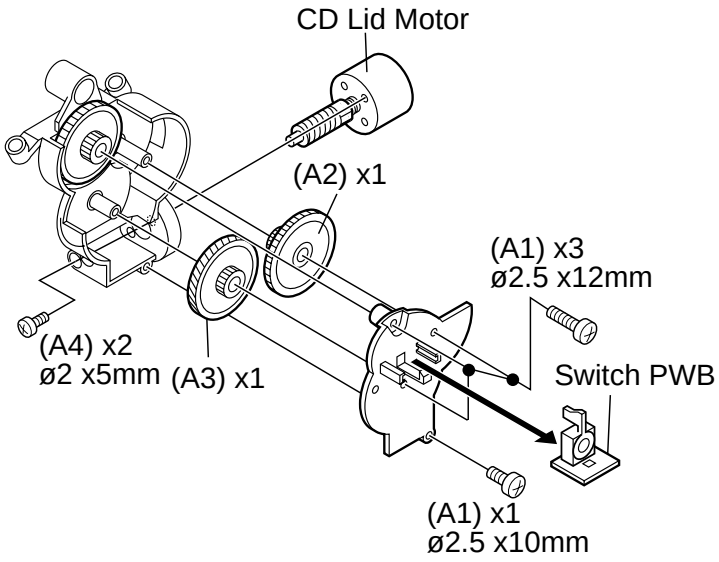


Figure 9-1

CD MECHANISM SECTION (See Fig. 9-2.)

Perform steps 1,2 and 7 of the disassembly method to remove the CD mechanism.

1. Remove the mechanism cover, paying attention to the pawls (A1)x 4 pcs.
2. Remove the screws (A2) x 2 pcs., to remove the shaft (A3) x 1 pc.
3. Remove the stop washer (A4) x 1 pc., to remove the gear (A5) x 1 pc.
4. Remove the pickup.

Note:

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to pretect the optical pickup from electrostatic damage.

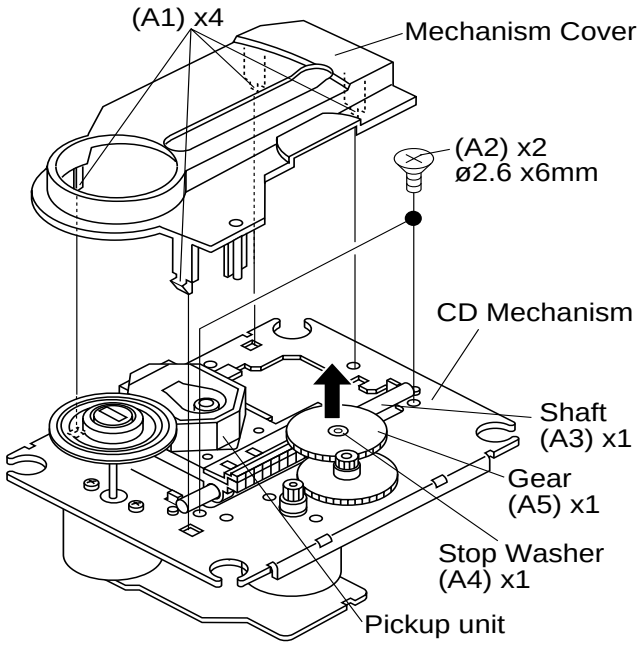


Figure 9-2

ADJUSTMENT

TUNER SECTION

fL: Low-range frequency
fH: High-range frequency

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Frequency	Frequency	Display	Setting/ Adjusting Parts	Instrument Connection
AM IF	450 kHz	1,620 kHz	T351	*1
AM Band Coverage	—	522 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	(fL): T302	*1

*1. Input: Antenna, Output: Speaker Terminal
*2. Input: Input is not connected, Output: TP301

• FM RF

Signal generator: 1 kHz, 75 kHz dev., FM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
FM Band Coverage	—	87.5 MHz	(fL): L303 3.4 ± 0.1 V	*1
FM RF	98.00 MHz (10~30 db)	98.0 MHz	L302	*2

*1. Input: Antenna, Output: TP301
*2. Input: Antenna, Output: Speaker Terminal

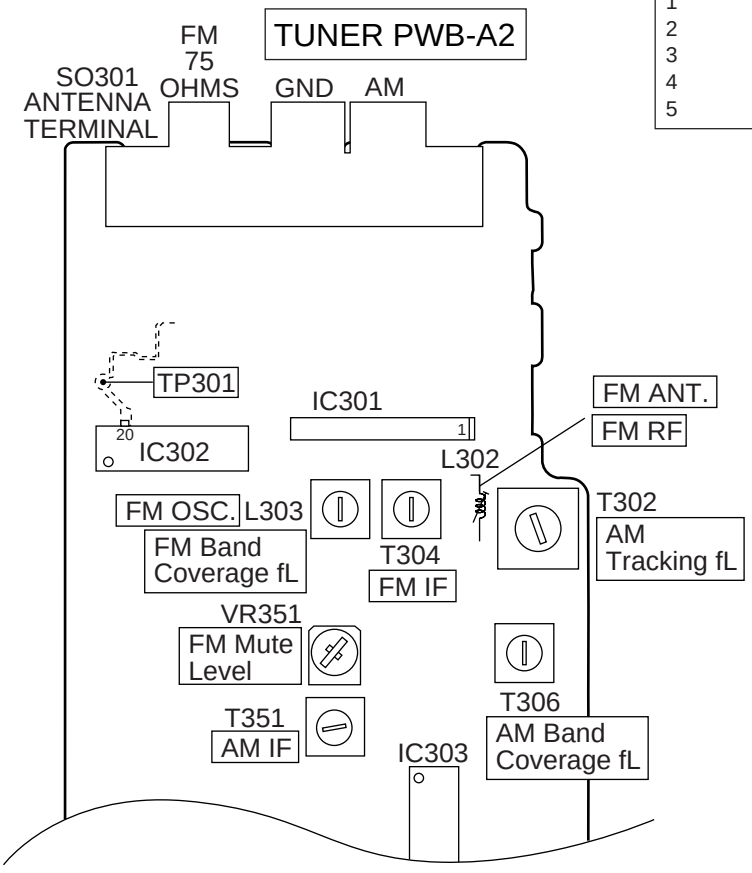


Figure 10-1 ADJUSTMENT POINTS

• FM Mute Level

Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Display	Adjusting Parts	Instrument Connection
98.00 MHz (30 dBμV)	98.00 MHz	VR351*1	Input: SO301 Output: Speaker Terminal

*1. Adjust so that an output signal appears.

• FM Detection

Signal generator: 10.7 MHz, FM sweep generator

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
FM IF	10.7 MHz	98.0 MHz	T304(Turn the core of T304 fully counter-clockwise.)	Input: Pin 1 of IC301

• Setting the Test Mode

Keeping the FF/FWD button and MEMORY/SET button pressed, turn on POWER. Then, the frequency is initially set in the memory as shown in Table. Call it with the VOLUME UP/ DOWN button to use it for adjustment and check of tuner circuit.

Preset No.	FM	Preset No.	AM
1	87.5 MHz	6	530 kHz
2	108.0 MHz	7	1,720 kHz
3	98.0 MHz	8	990 kHz
4	90.0 MHz	9	600 kHz
5	106.0 MHz	10	1,400 kHz

TEST MODE

The test mode applied to this microcomputer has three modes, namely the ordinary test mode for adjustment or measurement, the aging test mode, and the self-diagnosis test mode for self-judgment in case of final product inspection.

1. Turning on the test mode

For obtaining each test mode, press the POWER button, while keeping pressing the following two buttons in the ordinary stand-by mode (power off). In this case, the main unit buttons are valid. When turning the POWER on with remote control buttons, test modes are not obtained.

[Ordinary test mode]

1. CD Test Mode (TEST 1)..... REW/PRESET DOWN + VOLUME UP
2. Tuner Test Mode (TEST 2).....REW/PRESET DOWN + CD PLAY
3. Electronic Volume Test Mode (TEST 3)..... REW/PRESET DOWN + FF/PRESET UP
4. Timer Test Mode (TEST 4)..... FUNCTION + VOLUME UP
5. LCD Test Mode (TEST 5)..... FUNCTION + FF/PRESET UP
6. Electric CD Lid Aging Test Mode (TEST 8)..... FUNCTION + CD PLAY

[Self-diagnosis Test Mode]

1. Button input diagnosis test mode (TEST6)..... FUNCTION + VOLUME

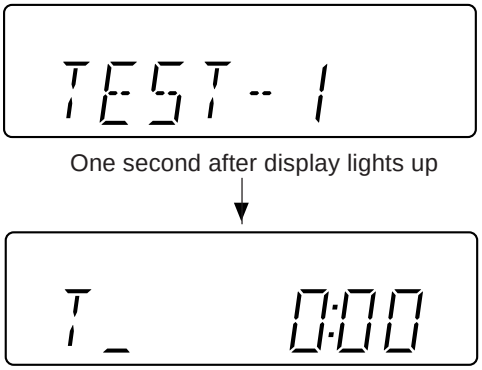
Processes are different depending on destinations at initial settings.

2. CD Test Mode (TEST 1)

In the CD test mode the operation of each step is possible even if the LID-SW is off. If focus cannot be taken in step 3 or any error is processed, it is impossible to proceed to the next step. During error processing, end the test mode by pressing the POWER button or return to the step 1 by pressing the CD STOP button. Any other operations are inhibited.

1. Step 1 Mode

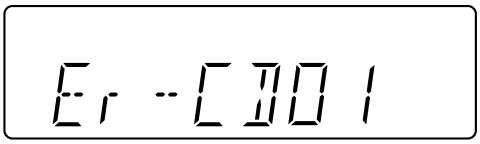
When the CD test mode is obtained, the following display lights up. Then CD initialization operation flow proceeds up to CD STB off to wait for the following buttons to be pressed.



Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... After the pickup returns to the innermost periphery, it slides toward the outer periphery while this button is pressed.
"REW/REV" ..... After the pickup returns to the innermost periphery, it slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 2
"STOP" ..... Invalid
"FUNCTION" ..... Shift to step 5

* In case of initialization, the pickup is moved toward the inner periphery. Any buttons other than "POWER" button are not accepted until the shift of pickup to the inner periphery is completed at this time. If PICKUP IN SW ON cannot be detected within 10 seconds, the slide motor stops, and the following error display appears. Press the POWER button to end the test mode, or press the CD STOP button to return to step 1. Any other operations are inhibited.



2. Step 2 Mode

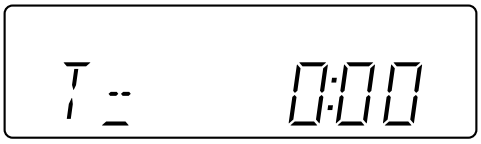
Press the "CD PLAY" button in this mode to transmit the laser lighting command LDON (8400) and turn on the laser. Any other operations are not performed in this case.

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 3
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5

3. Step 3 Mode

While the laser keeps lighting, CD initialization operation flow proceeds up to 'CLV servo ON' to wait for the following buttons to be pressed.(Focus servo turned on for focus search)
The focus search is repeated to take focus.

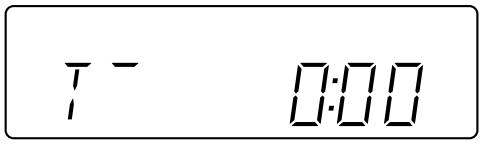


Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... If focus has been taken, shift to step 4 is executed. If not, acceptance is inhibited.
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
*If the focus is not received after it has been taken, the process returns to step 1.

4. Step 4 Mode

The CLV servo ON command (8600) is transmitted to wait for the following buttons to be pressed. (The disc is rotated for CLV lock.)



The time display always indicates "0:00".

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 5
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
*If the focus is not received, the process returns to step 1.

5. Step 5 Mode

When the CD initialization operation flow is completed, the mute is turned off, and playback is started. Even if playback reaches the outermost periphery of disc, the operation does not stop. The LCD display indicates the playback passage time as in case of ordinary CD playback.

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 6
"MEMORY" ..... Shift to step 7
*If the is not received, the process returns to step 1.

Other cautions
• TOC IL is not available for this test mode.

6. Step 6 Mode

Press the FUNCTION button during step 5 operation to set EC/FC bit to "H" by PROSET command (9188 transmission) and to monitor BUS2 (QDRE) during idle mode. The number of errors for 1 frame (1 sub-code block in IC data) is read by read command SRC6 during "H". The number of errors accumulated in 750 frames for 10 seconds is displayed on LCD. During the display, music signal is played back.

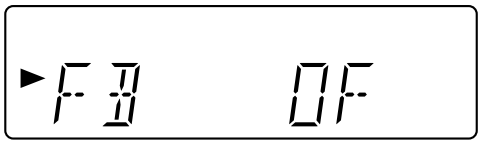
Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
"MEMORY" ..... Shift to step 7

Press FF/PRESET UP or REW/PRESET DOWN button to slide the pickup. The number of errors accumulated up to that time is cleared and addition is restarted after shift.
*If the focus is not received, the process returns to step 1.

7. Step 7 Mode

Press "MEMORY" key during step 6 operation to display automatically adjusted values on LCD in the order as below. Item names are displayed by left alignment, and adjusted values by right alignment in hexadecimal numbers. Operations other than display are as same as those for step 5.



a) "Fb" is displayed on the left of LCD. FTBAST command (D480) is transmitted to designate focus balance adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (b).

b) "FG" is displayed on the left of LCD. FTBAST command (D481) is transmitted to designate focus gain adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. The upper two bits, which are invalid, are displayed as "00". After waiting two seconds, operation is shifted to (c).

c) "Tb" is displayed on the left of LCD. FTBAST command (D482) is transmitted to designate tracking balance adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (d).

d) "TG" is displayed on the left of LCD. FTBAST command (D483) is transmitted to designate tracking gain adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. The upper two bits, which are invalid, are displayed as "00". After waiting 2 seconds, operation is shifted to (e).

e) "FO" is displayed on the left of LCD. FTBAST command (D484) is transmitted to designate focus offset adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (f).

f) "TO" is displayed on the left of LCD. FTBAST command (D485) is transmitted to designate tracking offset adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (g).

g) "FF" is displayed on the left of LCD. FTBAST command (D486) is transmitted to designate RF amplitude adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (a).

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.

"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.

"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.

"PLAY" ..... Invalid

"STOP" ..... Return to step 1

"FUNCTION" ..... Shift to step 6

"MEMORY" ..... Shift to step 5

*If the focus is not received, the process returns to step 1.

3. Tuner Test Mode (TEST 2)

1. Outline of tuner (radio) test mode

The tuner test mode is intended to store the adjustment and measurement frequencies in the preset memory CH. When adjusting the tuner section in the production line, adjusting personnel are not required to set frequency.

2. Details of tuner test mode

Press the "REW/PRESET DOWN" and "CD PLAY" buttons in POWER OFF state and turn on the power by the use of "POWER" button to preset and store frequency for adjustment and measurement of destination specified by the AREA terminal in the preset memory CH. However, Ordinary 1 and Ordinary 2 are stored in the destinations (selected by SPAN switching operation) when the test mode is obtained.

("FF⏭" + "MEMORY/SET" KEY SPAN CHANGE)

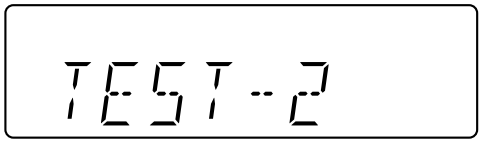
(As for frequencies to be preset and stored for each destination, refer to item 3.)

The tuner test mode is started from preset No.1.

The operations of test mode are identical with the ordinary operations of TUNER function. FUNCTION switching is invalid.

It is necessary to discard the content of preset memory when the tuner test mode is ended; be sure to write "0000" or "1111" bits in the memory to be checked for judging memory error at initial setting and to initialize memory.

When the tuner test mode is obtained, the following display lights for one second.



• The TUNER TEST2 mode is obtained with >> + MEMORY + POWER. ->Turn off AC in the TEST2 mode to restore the initial state.

↓

Turn off POWER to protect the memory of TEST2 mode.
Turn off POWER again to obtain the ordinary operation while the data is stored in the memory (besides TUNER).

↓

If AC OFF state is maintained in this state for about 1/2 day, start is executed in the initial state.

• To clear the whole memory, insert the AC cord, pressing MEMORY + CD PLAY.

3. Preset frequencies for various destinations (random preset memory)

CH	BAND	FM
1		FM 87.5 MHz
2		FM108.0 MHz
3	FM	FM 98.0 MHz
4	STEREO	FM 90.0 MHz
5		FM106.0 MHz

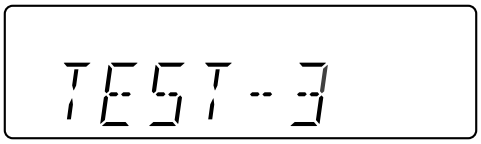
CH	BAND	AM
6		AM 530 kHz
7		AM1,720 kHz
8	AM	AM 990 kHz
9		AM 600 kHz
10		AM1,400 kHz

CH	BAND	FM
16-25		
26		FM106.0 MHz
27		FM 90.0 MHz
28	FM	FM 98.0 MHz
29	MONO	FM108.0 MHz
30		FM 87.5 MHz

• The slant line sections of the table store no memory.

4. Electronic volume Test Mode (TEST 3)

When this test mode is obtained, the following display lights for one second.



In this mode, volume is -14 dB (STEP28), BASS/TREBLE is set to 0 (0 dB) and SURROUND mode to OFF, and start-up function to CD, respectively. The button operations in the test mode are the same as those of ordinary operation except volume UP/DOWN.

(1) The display is the same as that of ordinary operation except test mode setting.

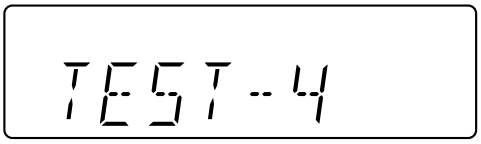
(2) Unlike the ordinary state, the volume is controlled with the volume UP/DOWN button in accordance with the following three steps.

Volume- ∞ (STEP 0) <-> Volume-14 dB (STEP 23) <-> Volume-0 (STEP 30)

(3) BASS/TREBLE and SURROUND are switched when button is pressed..

5. Timer test Mode (TEST 4)

When this test mode is obtained, the following display lights for one second.

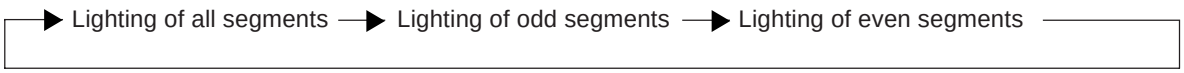


Set the current time and timer time according to the following procedure to reproduce the timer.

1.Set the current time to 1:00, the timer to ON time 1:05, the function to CD, and volume to STEP 12, respectively. One minute is counted as one second, and the timer is reproduced. The fade-in (when playback is started) is executed at a rate of one step for 1 sec. After completion of fade-in, the fade-out is executed at a rate of one step for 1 sec (WAIT 1 sec inserted). After completion of fade-out, the power is turned off (after WAIT 1 sec), and the mode is shifted to the standby.
The display during operation is the same as that of ordinary timer operation.

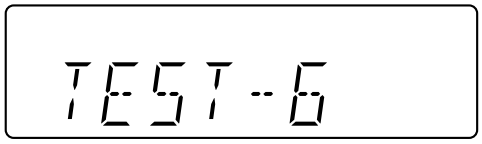
6. LCD Test Mode (TEST 5)

When the LCD test mode is obtained, all the LCD segments are lighted. Then pressing the "PLAY" button switches display as below.



7. Key input diagnosis Test Mode (TEST 6)

When the test mode is obtained, the following is displayed.

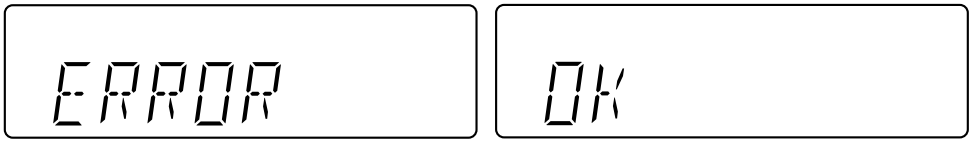


This test mode is intended to check whether all the main unit buttons can be detected. Accordingly, in this test mode, it is checked whether the "POWER" button was pressed after all the buttons shown below were pressed. If the result is OK, OK is displayed. If any one of keys was not pressed, an error is displayed. In both cases of OK termination or error termination, the mode is shifted to the standby mode if the "POWER" button is pressed subsequently.

All models using this type of microcomputer are not always provided with the same buttons. Since the buttons used are different depending on models, types of buttons to be used are determined by whether SURROUND, and an electric lid are available at the initial setting by MODEL port.

The order of buttons to be pressed is not determined. Accordingly, it is checked whether all buttons have been pressed.

1. PU-IN buttons: REW/PRESET DOWN + CD STOP
   Since this model is provided with SURROUND (HAVE OR NOT), and electric CD lid, the following 10 buttons are detected as all buttons.
   PLAY, BASS/TREBLE, FUNCTION, VOLUME UP/DOWN, MEMORY/SET, REW, FF, STOP, CD-OPEN/CLOSE
   The OK/NG display of test result is as follows.



8. Electric CD lid Aging Test Mode (TEST 8) (Only for model with electric CD lid)

Outline

OPEN/CLOSE operations of electric CD lid are repeated. The number of repeated times and time period are monitored. If the lid does not move to the regular position after the specified time, operation is stopped. When an error is detected by [CLID_PRO] during CLOSE, operation is also stopped.

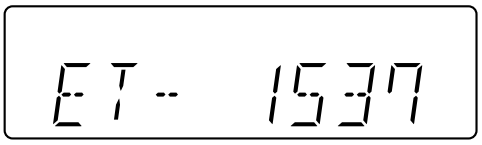
a. POWER ON for function AUX
   CD lid position is checked.
   - CLOSE position: Operation proceeds to the next process.
   - Position other than CLOSE: After the lid moves to CLOSE, operation proceeds to the next process.

b. CD lid operation started
   OPEN operation
   - WAIT 1 second
   - CLOSE operation
   - WAIT 1 second

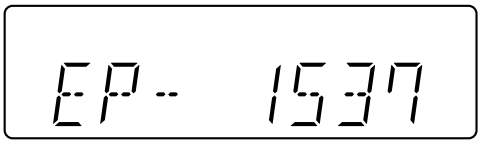
c. Operations above are repeated.
   Specified monitoring time
   - OPEN operation: 5 seconds
   - CLOSE operation: 5 seconds

d. Display
   OPEN>CLOSE is counted as 1. I to 59999 are counted; if the count is over 59999, display is returned to 0 to repeat counting.

Display when the lid does not move to the regular position after the specified time
(Ex: Defective operation occurring in the middle of 1538.)



Highlight display of stop when an error is detected by [CLID-PRO]
(Ex: Defective operation occurring in the middle of 1538.)



NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) : AM mode
     : FM stereo mode
  2. In the CD section, the CD is stopped.
- Parts marked with “⚠” (⊏ ニ ニ ニ コ) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
NSW801	PICKUP IN	ON—OFF
SW709	POWER	ON—OFF
SW710	CD LID OPEN/CLOSE	ON—OFF
SW711	FF/PRESET UP	ON—OFF
SW712	CD PLAY/PAUSE/TUNING UP	ON—OFF
SW713	VOLUME UP	ON—OFF
SW718	VOLUME DOWN	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW721	BASS/TREBLE	ON—OFF
SW722	MEMORY SET	ON—OFF
SW725	CD STOP/TUNING DOWN	ON—OFF
SW726	REW/PRESET DOWN	ON—OFF
SW727	FUNCTION	ON—OFF
SW802	CD LID	ON—OFF

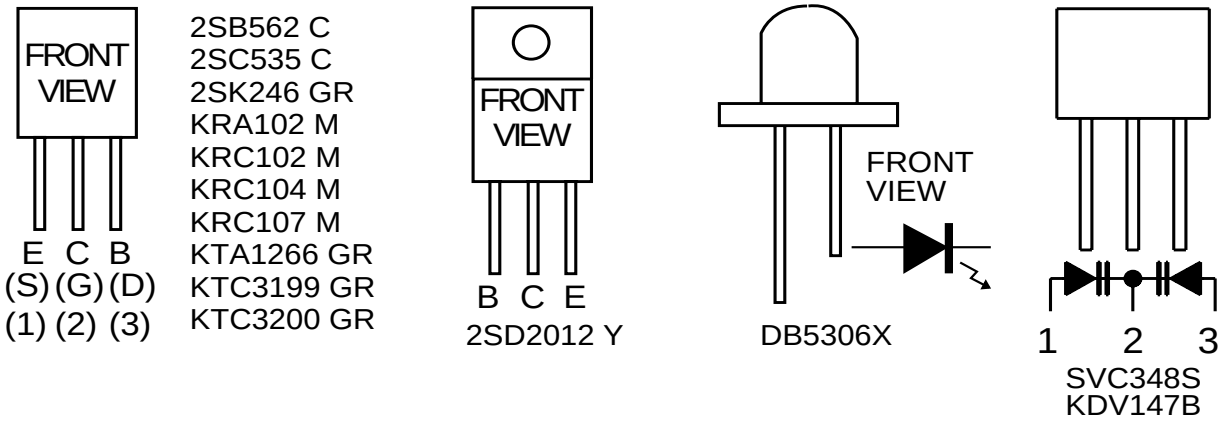
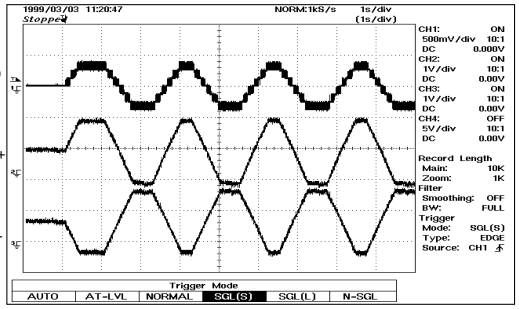


Figure 20 TYPES OF TRANSISTOR AND LED

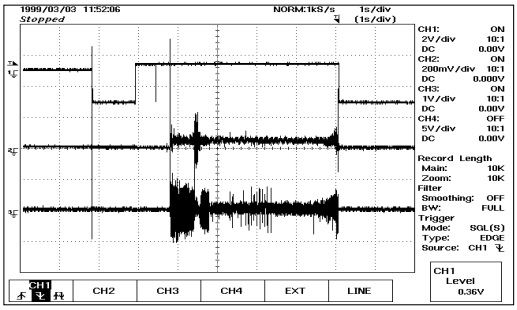
WAVEFORMS OF CD CIRCUIT

NO DISC FOCUS SEARCH



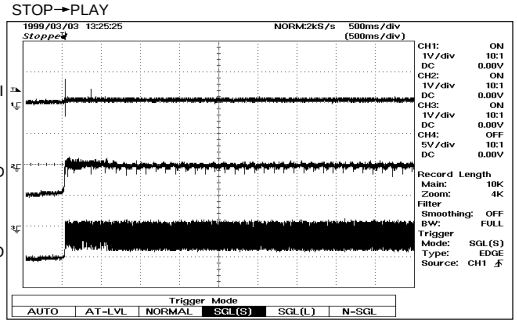
1 FOO — IC802 48pin
2 FO+ — IC804 26pin
3 FO- — IC804 25pin

FOCUS SEARCH→TOC IL



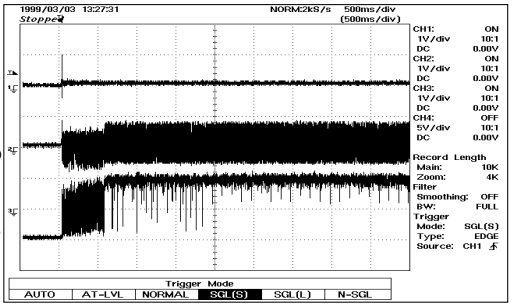
4 SEL — IC802 57pin
5 FEI — IC802 43pin
6 TEI — IC802 46pin

STOP→PLAY



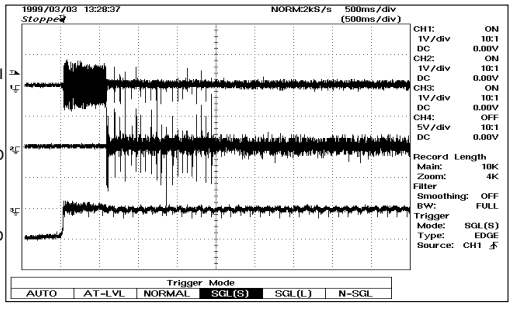
5 FEI — IC802 43pin
7 SBAD — IC802 44pin
8 RFO — IC801 22pin

STOP→PLAY



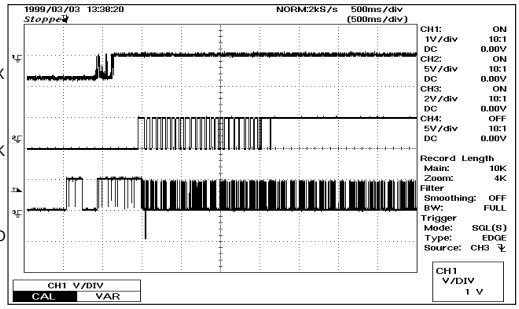
5 FEI — IC802 43pin
9 RFGO — IC801 19pin
10 RFRP — IC801 17pin

STOP→PLAY



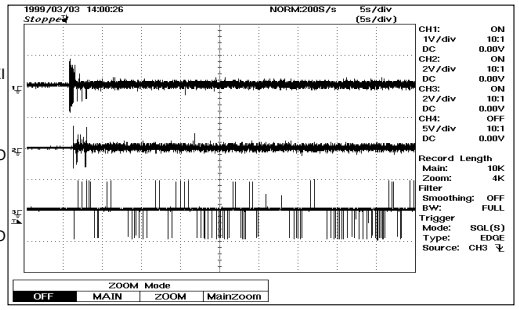
6 TEI — IC802 46pin
11 TRO — IC802 49pin
7 SBAD — IC802 44pin

STOP→PLAY



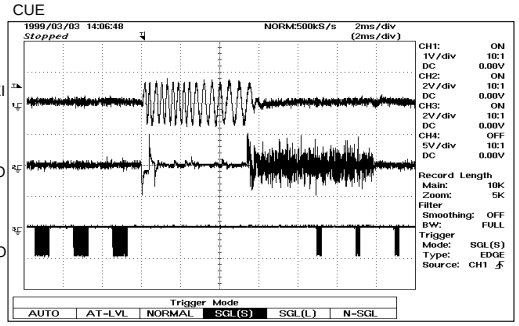
12 TMAX — IC802 30pin
13 SBOK — IC802 12pin
14 DMO — IC802 55pin

STOP→PLAY



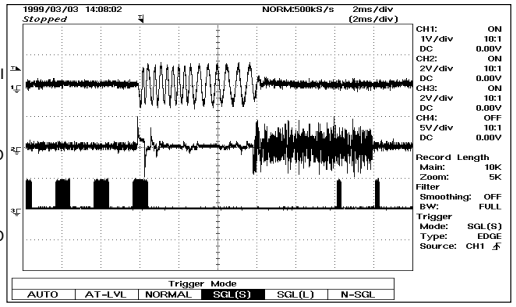
6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

CUE



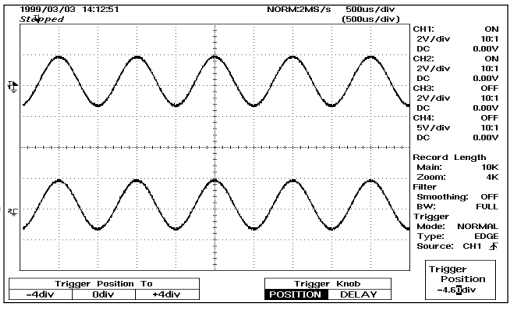
6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

REVIEW



6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

TCD-782 TNO-02 PLAYBACK



16 LO — IC802 85pin
17 RO — IC802 82pin

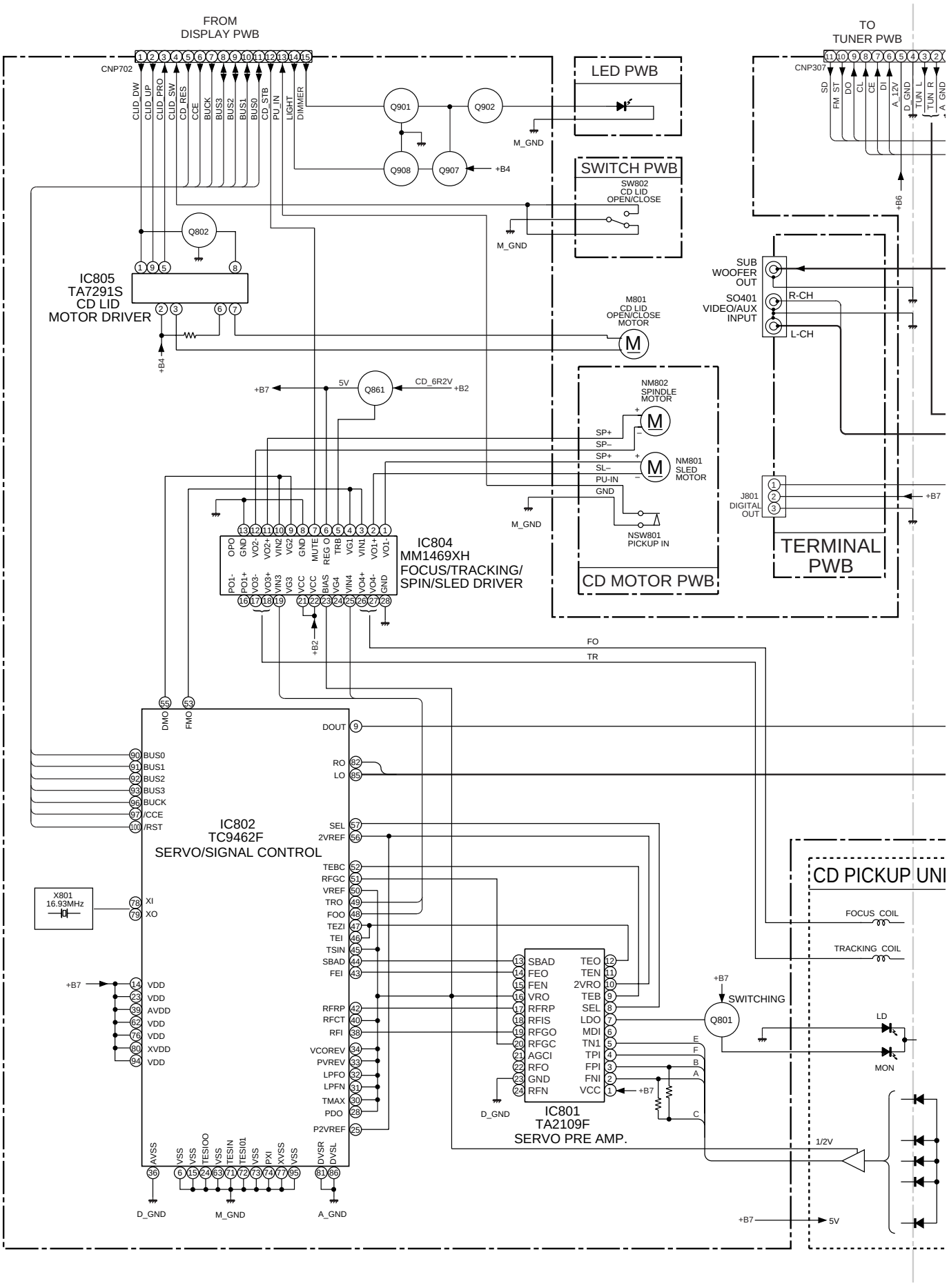


Figure 22 BLOCK DIAGRAM (1/4)

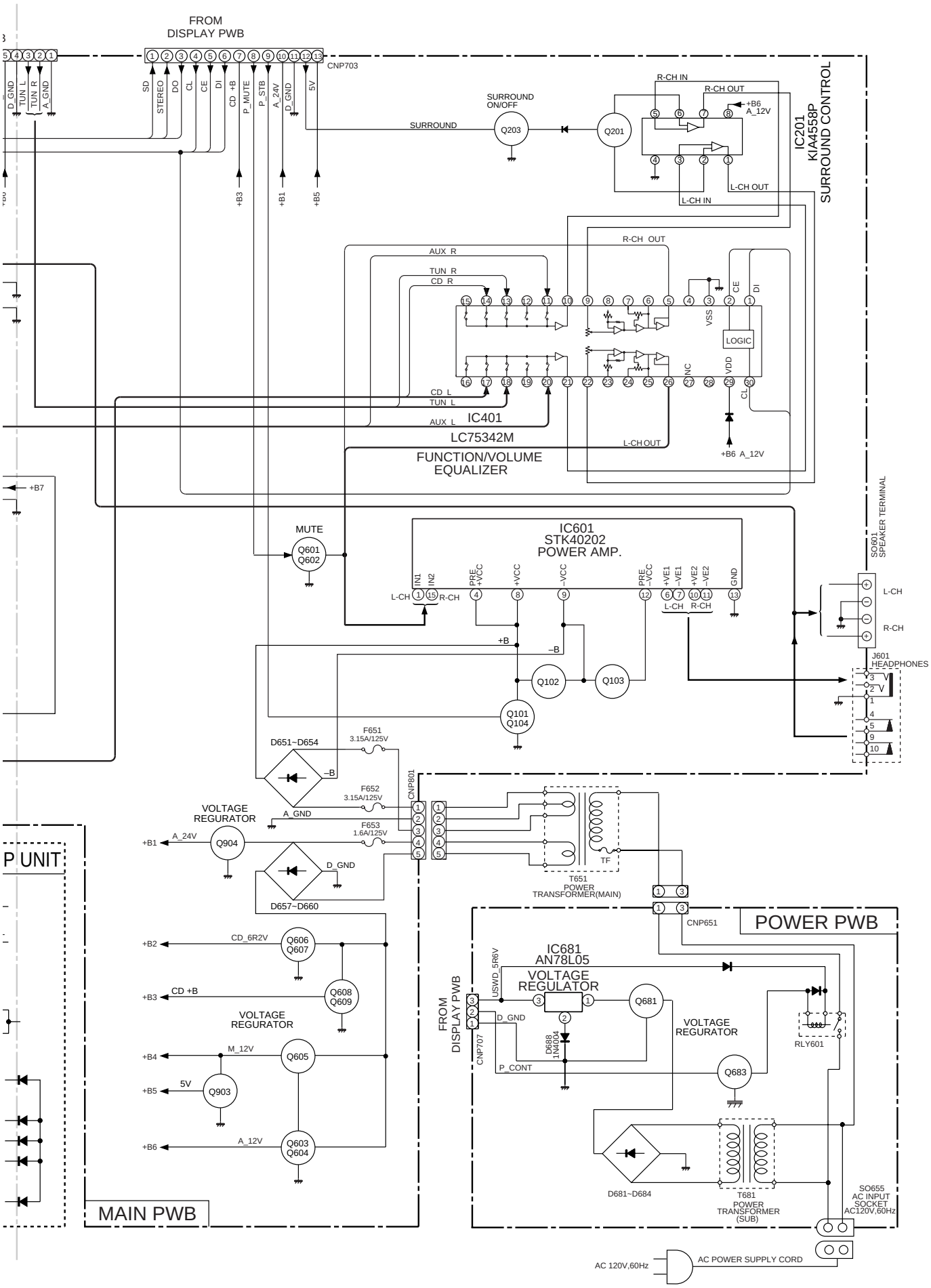


Figure 23 BLOCK DIAGRAM (2/4)

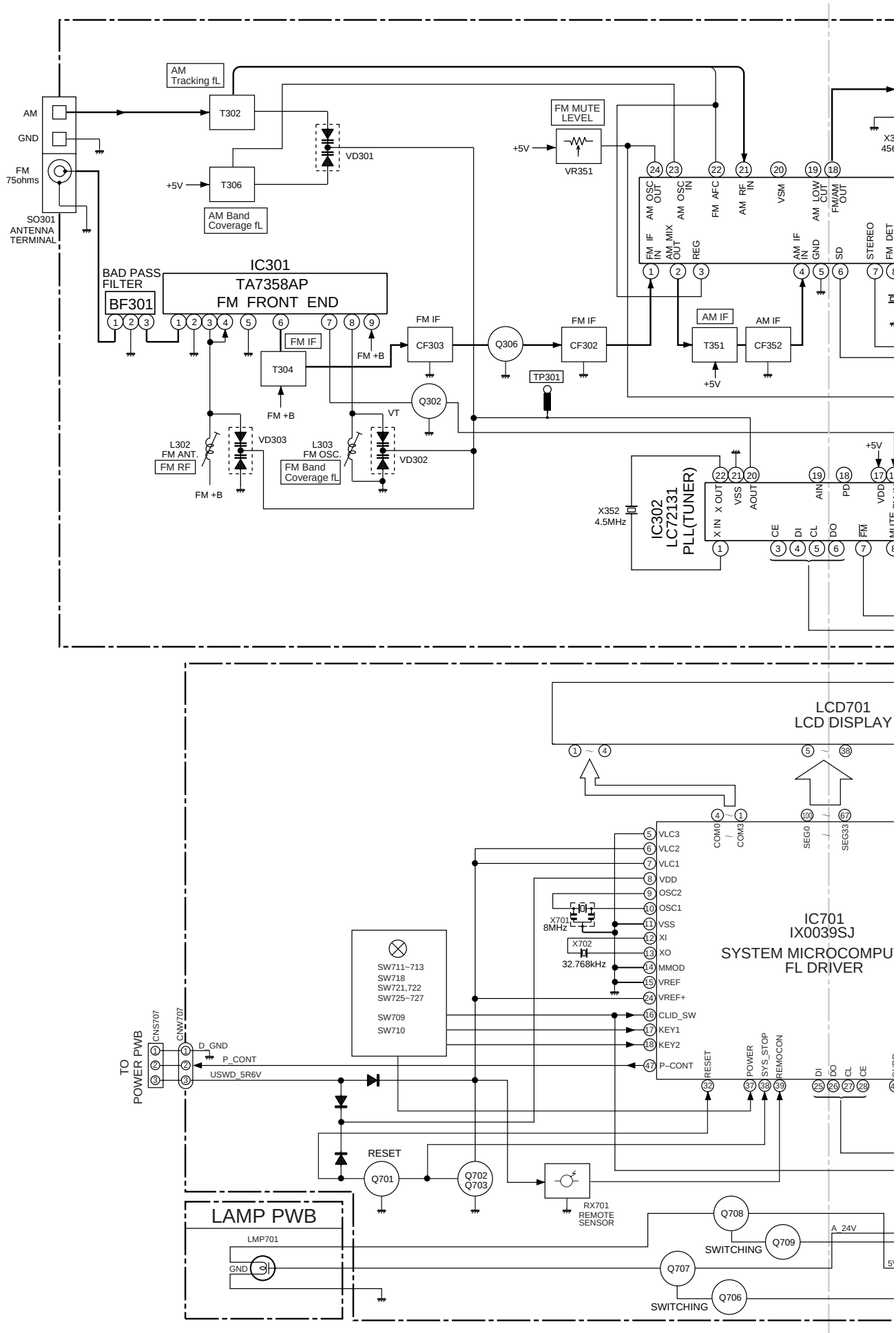


Figure 24 BLOCK DIAGRAM (3/4)

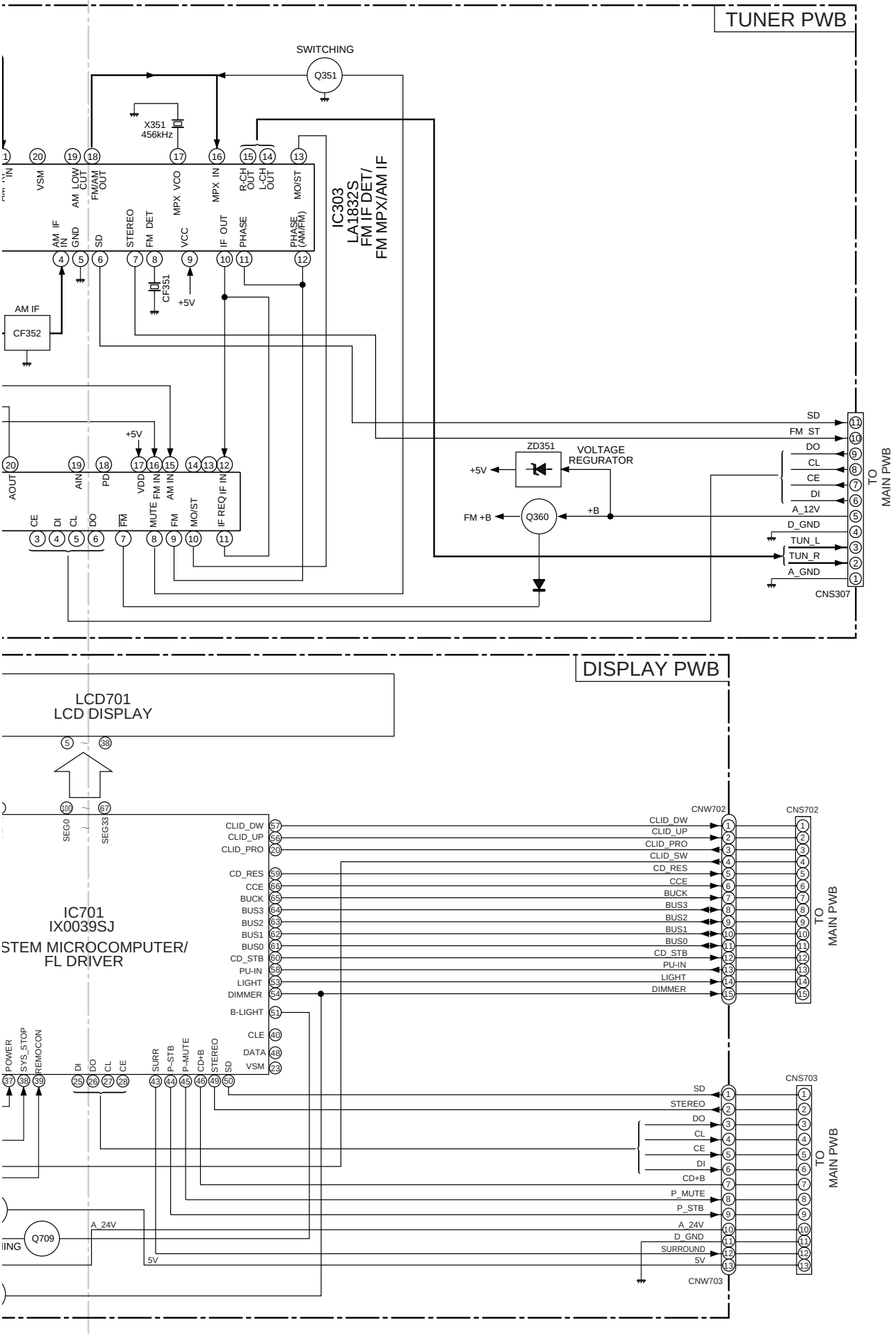
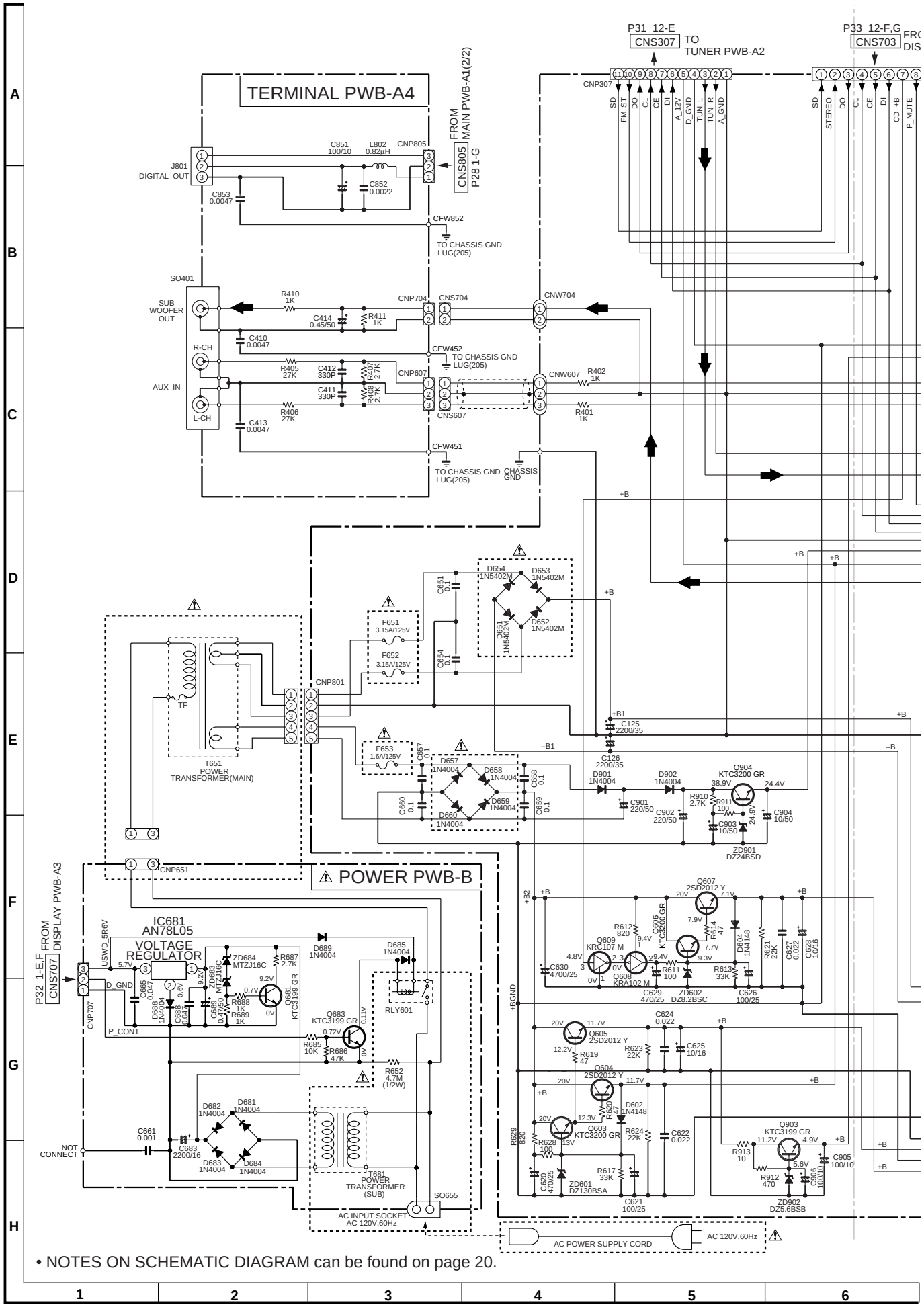
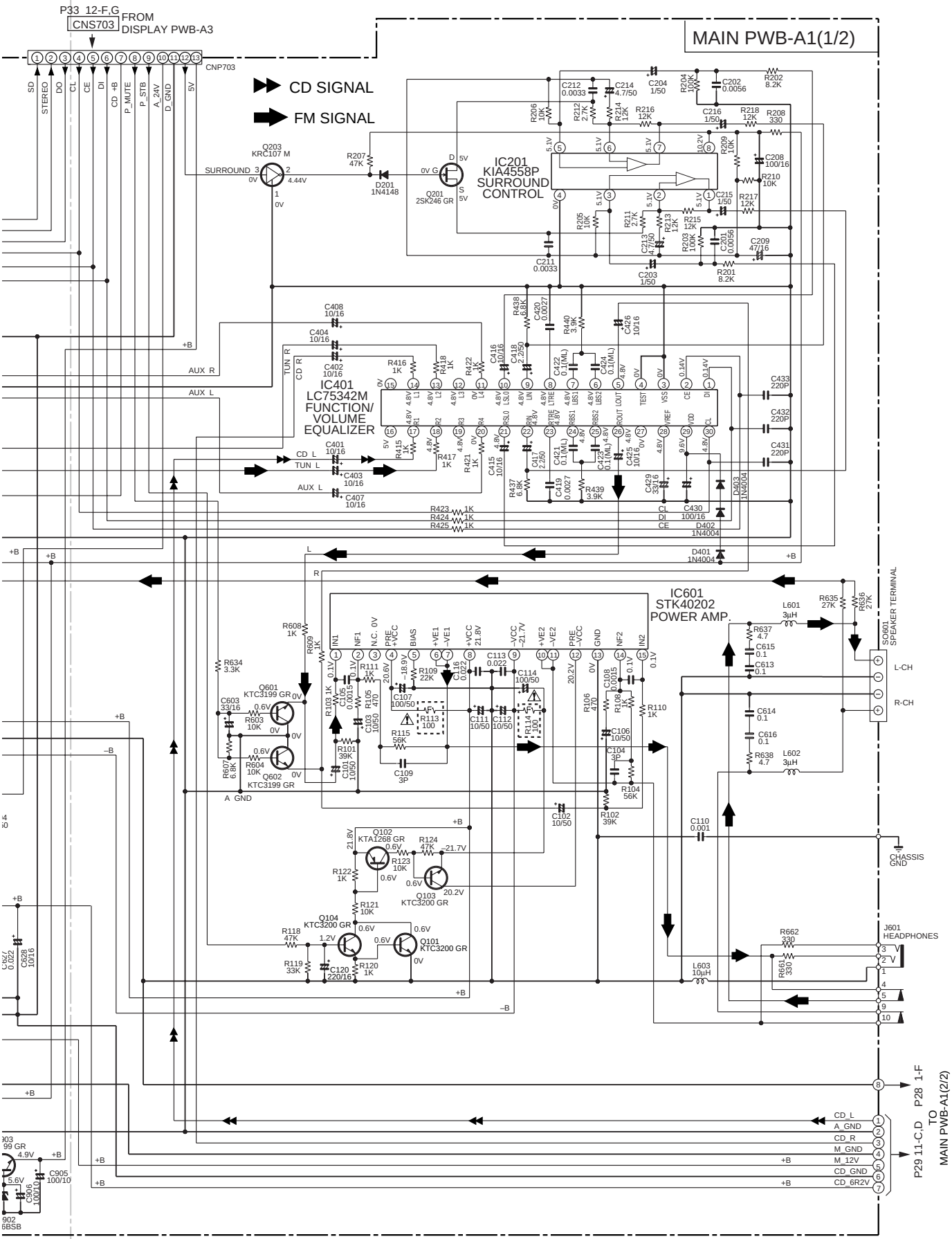


Figure 25 BLOCK DIAGRAM (4/4)



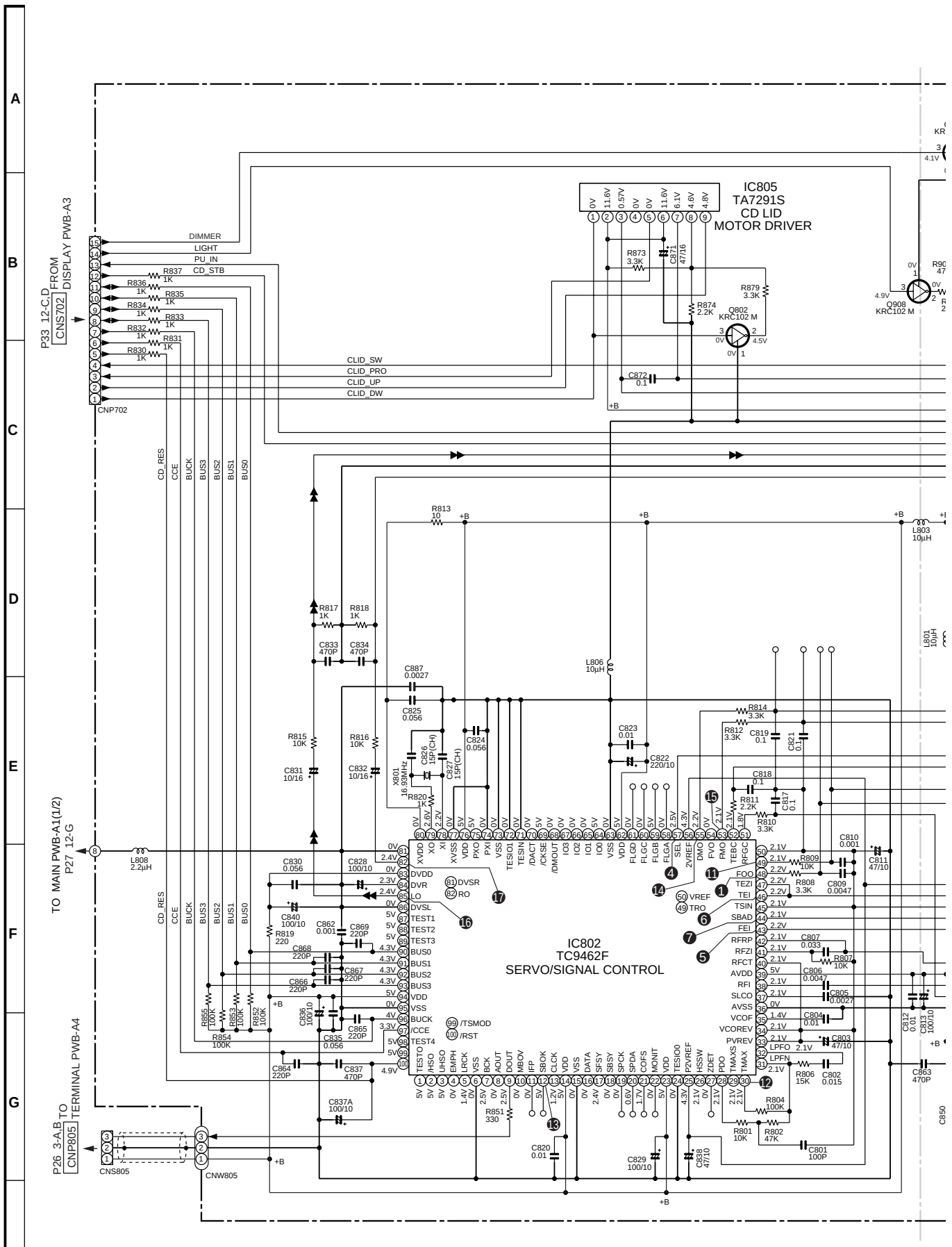
• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 26 SCHEMATIC DIAGRAM (1/8)



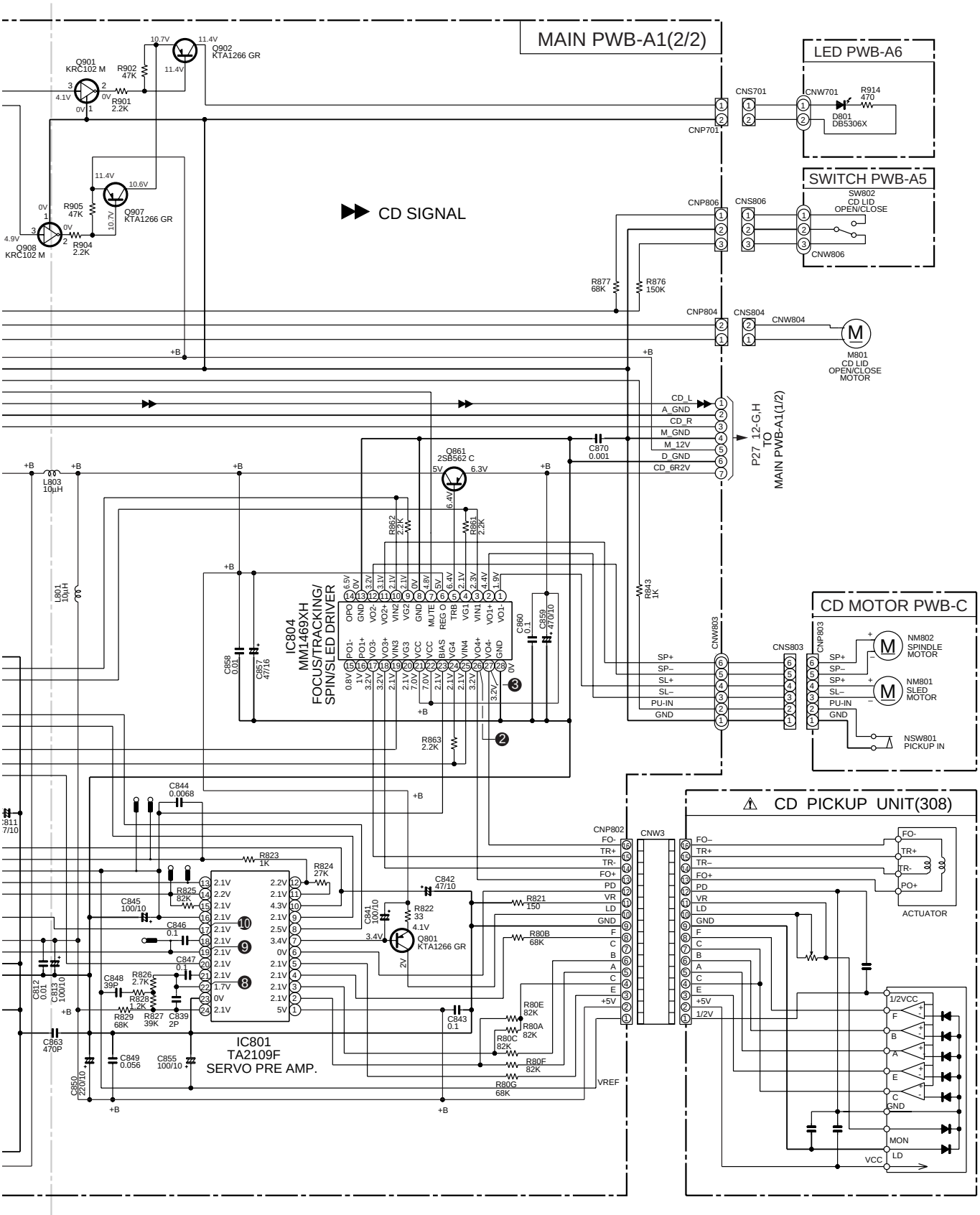
7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (2/8)



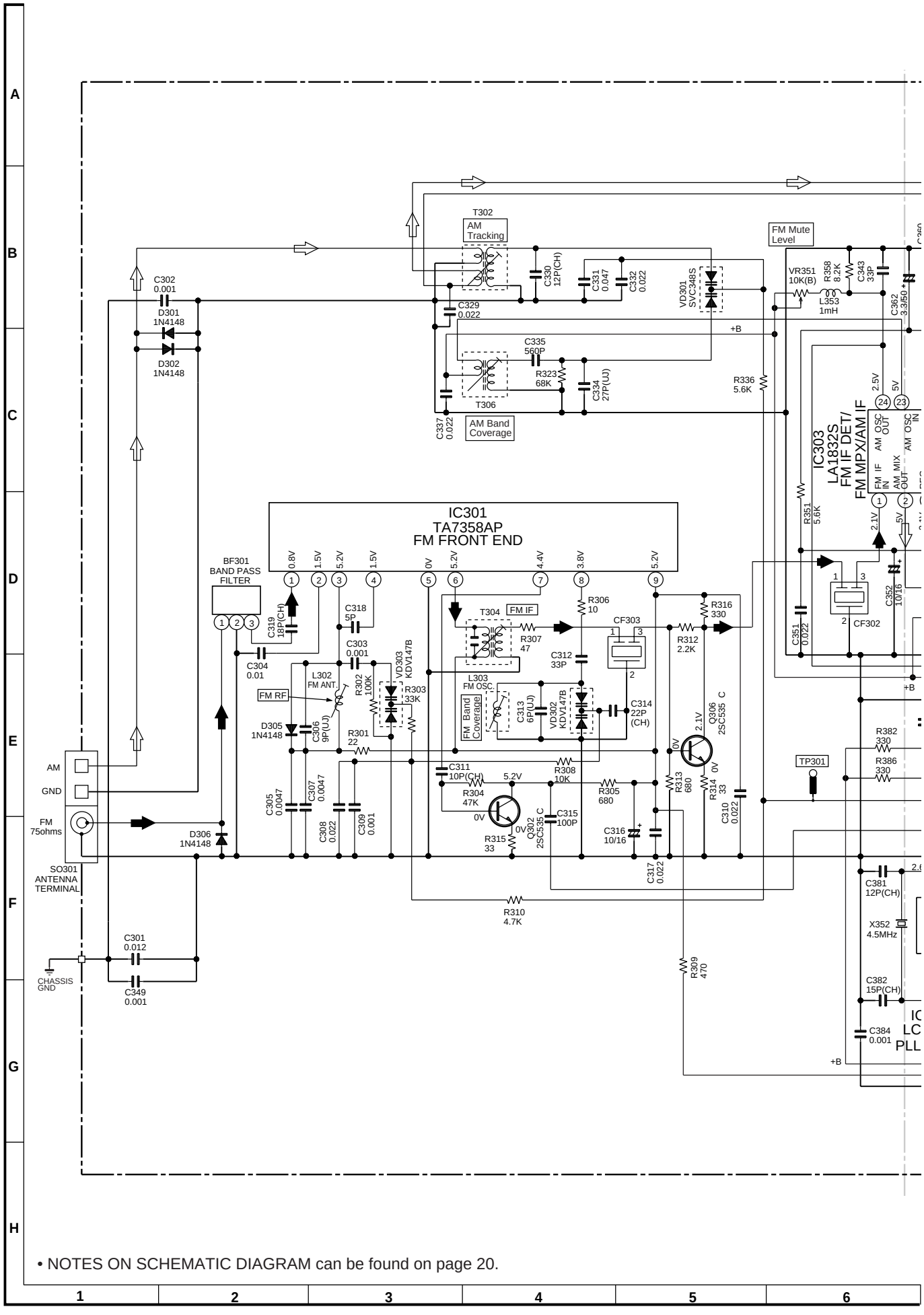
- NOTES ON SCHEMATIC DIAGRAM can be found on page 20.
- The numbers 1 to 17 are waveform numbers shown in page 21.

Figure 28 SCHEMATIC DIAGRAM (3/8)



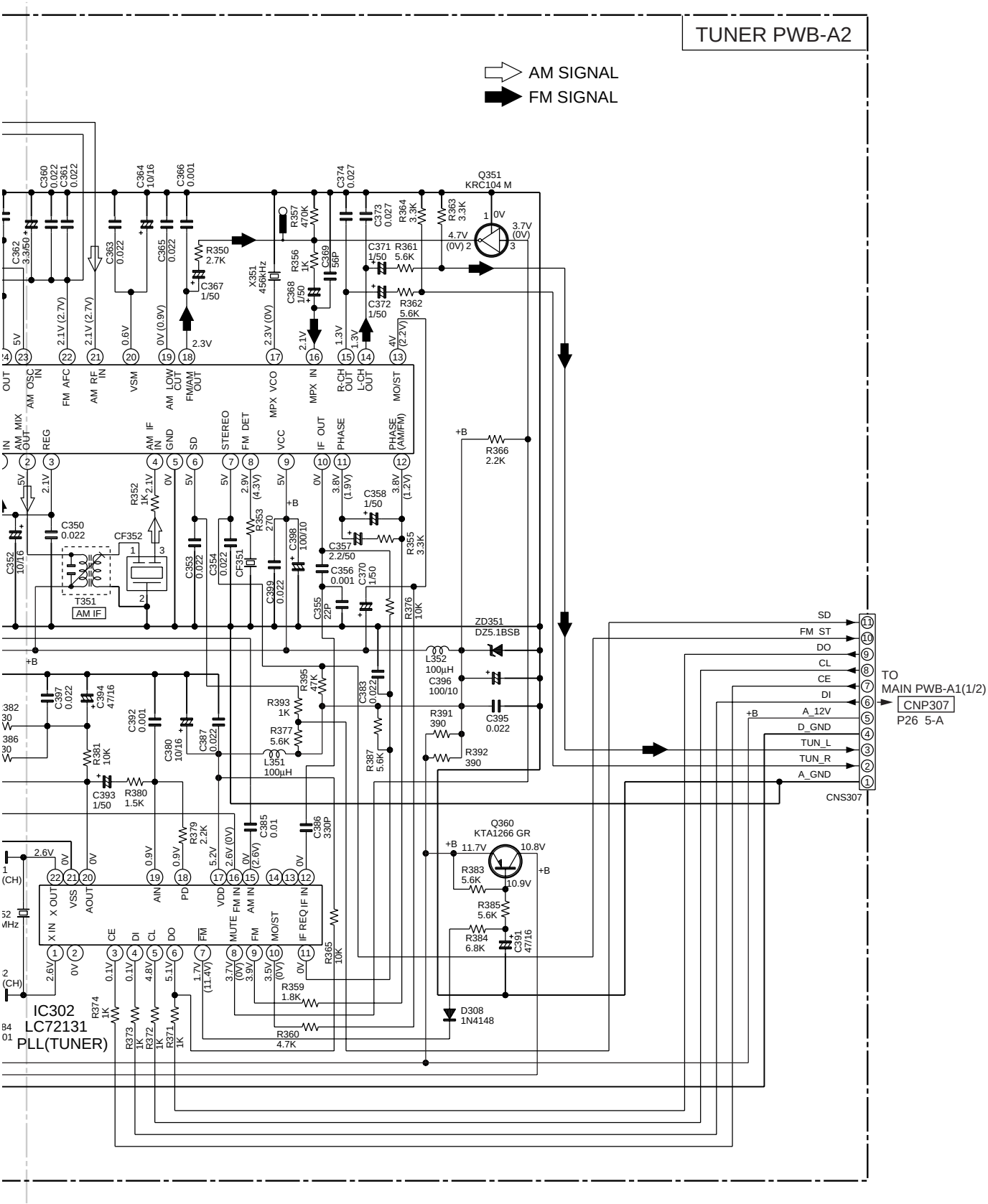
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (4/8)



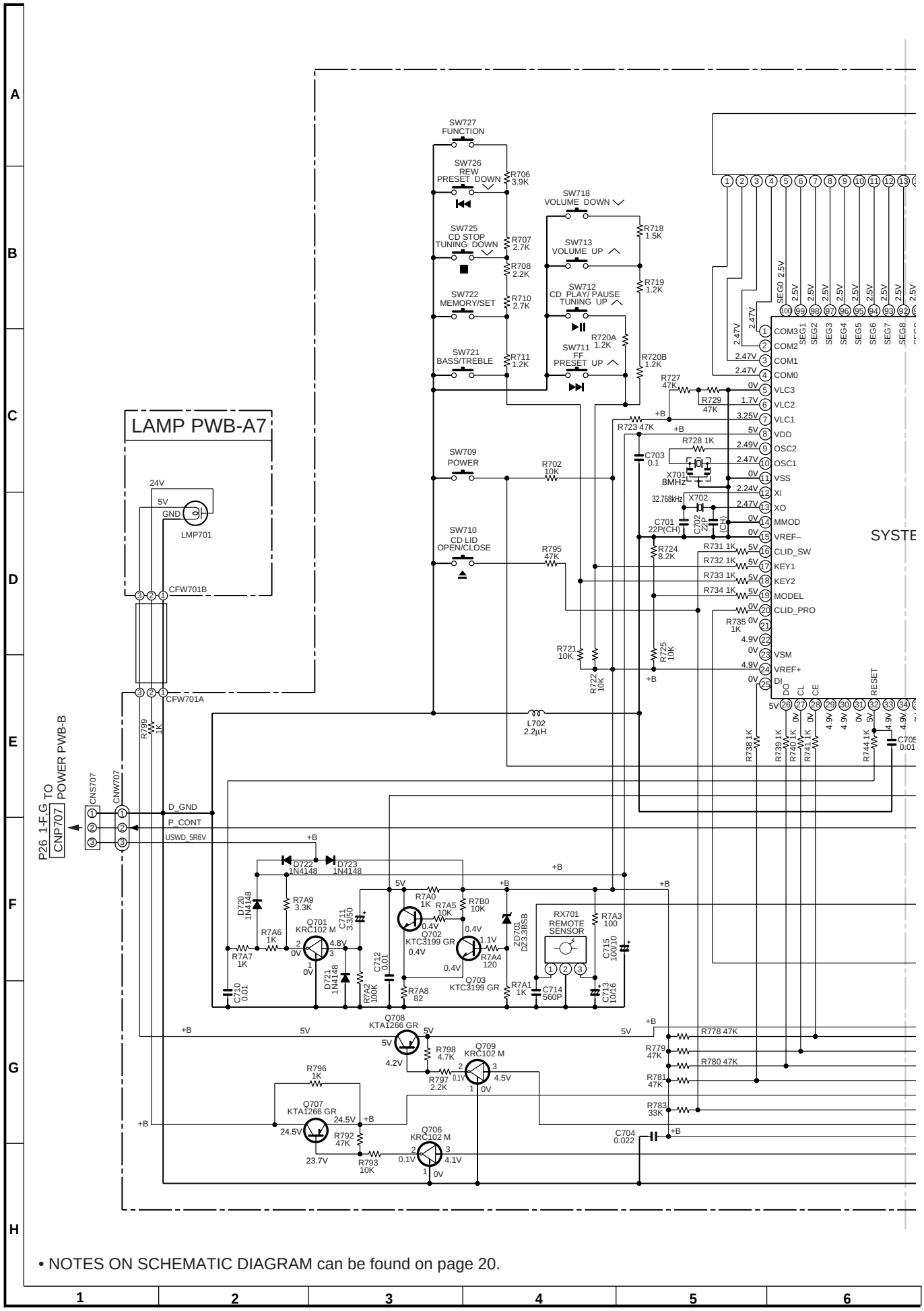
• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 30 SCHEMATIC DIAGRAM (5/8)



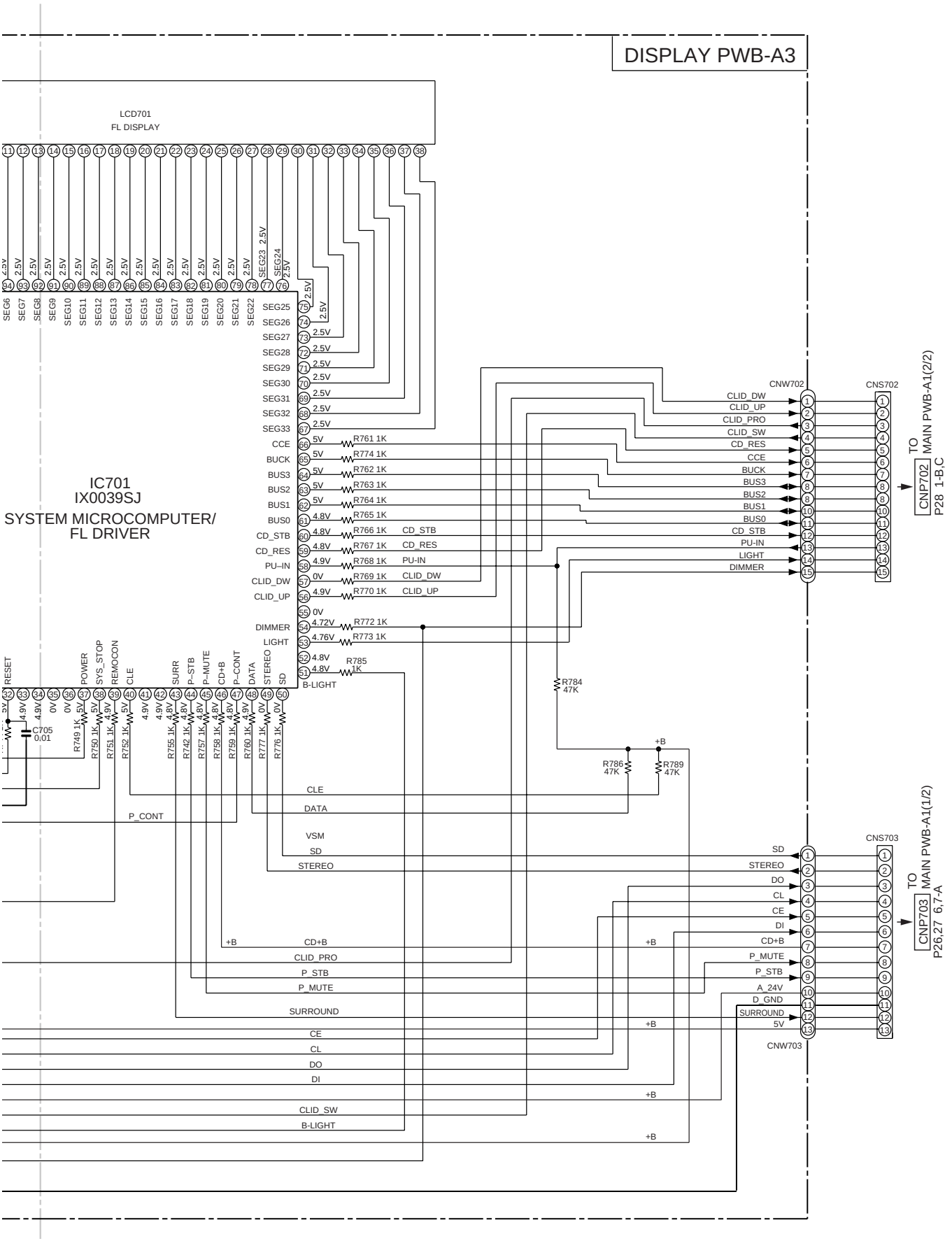
7	8	9	10	11	12

Figure 31 SCHEMATIC DIAGRAM (6/8)



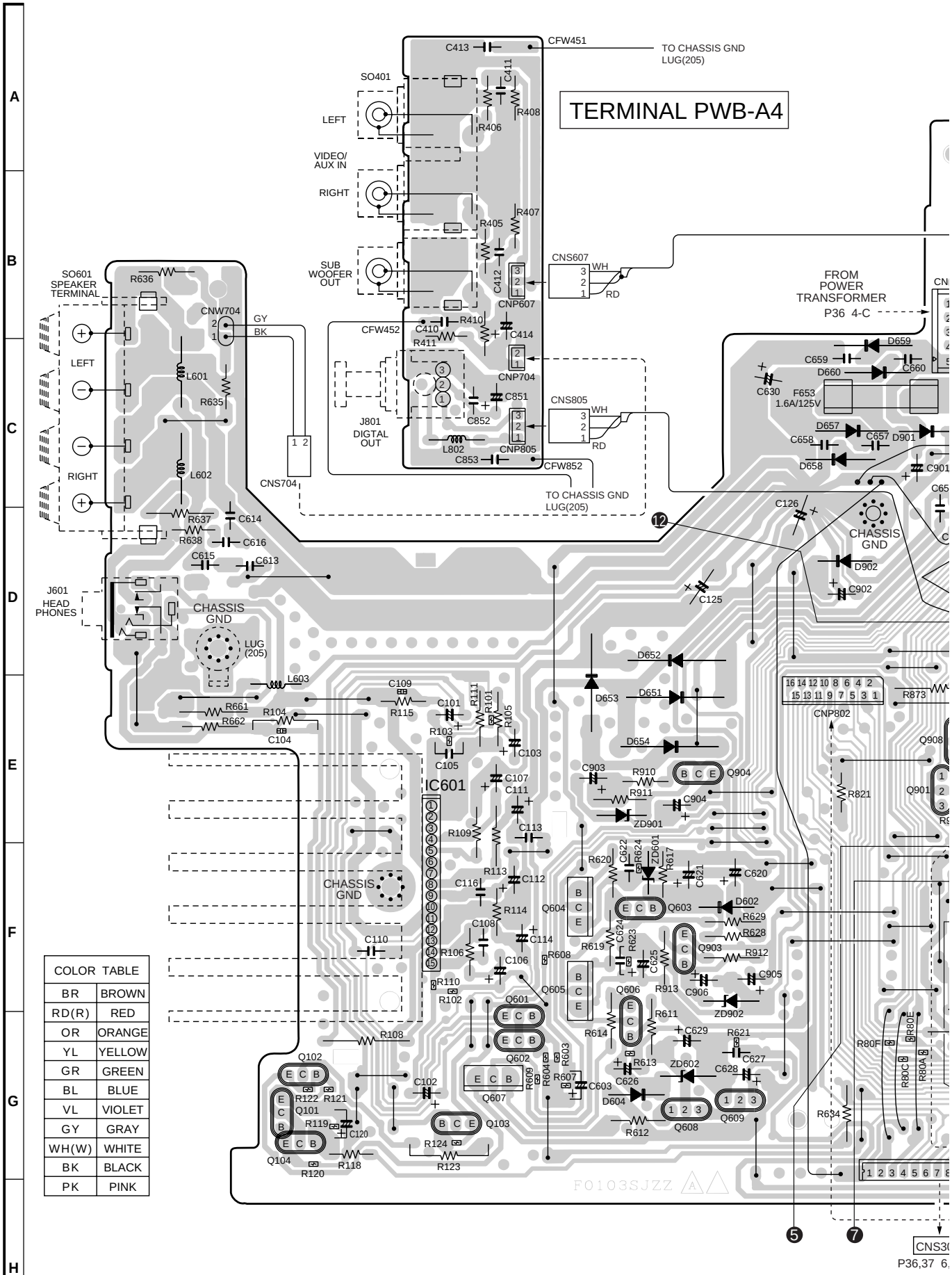
• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 32 SCHEMATIC DIAGRAM (7/8)



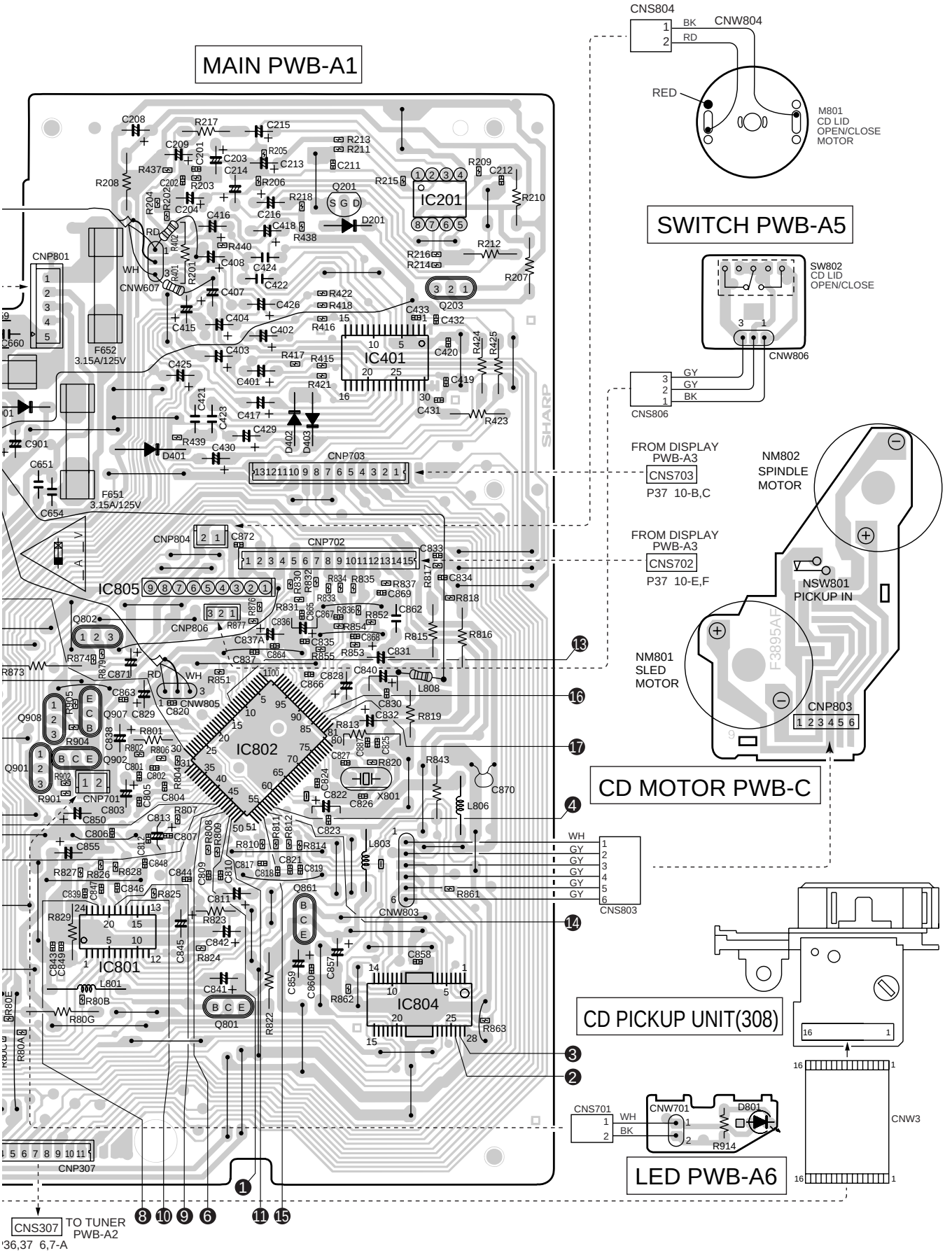
7	8	9	10	11	12

Figure 33 SCHEMATIC DIAGRAM (8/8)



COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

Figure 34 WIRING SIDE OF P.W.BOARD (1/4)



7	8	9	10	11	12

Figure 35 WIRING SIDE OF P.W.BOARD (2/4)

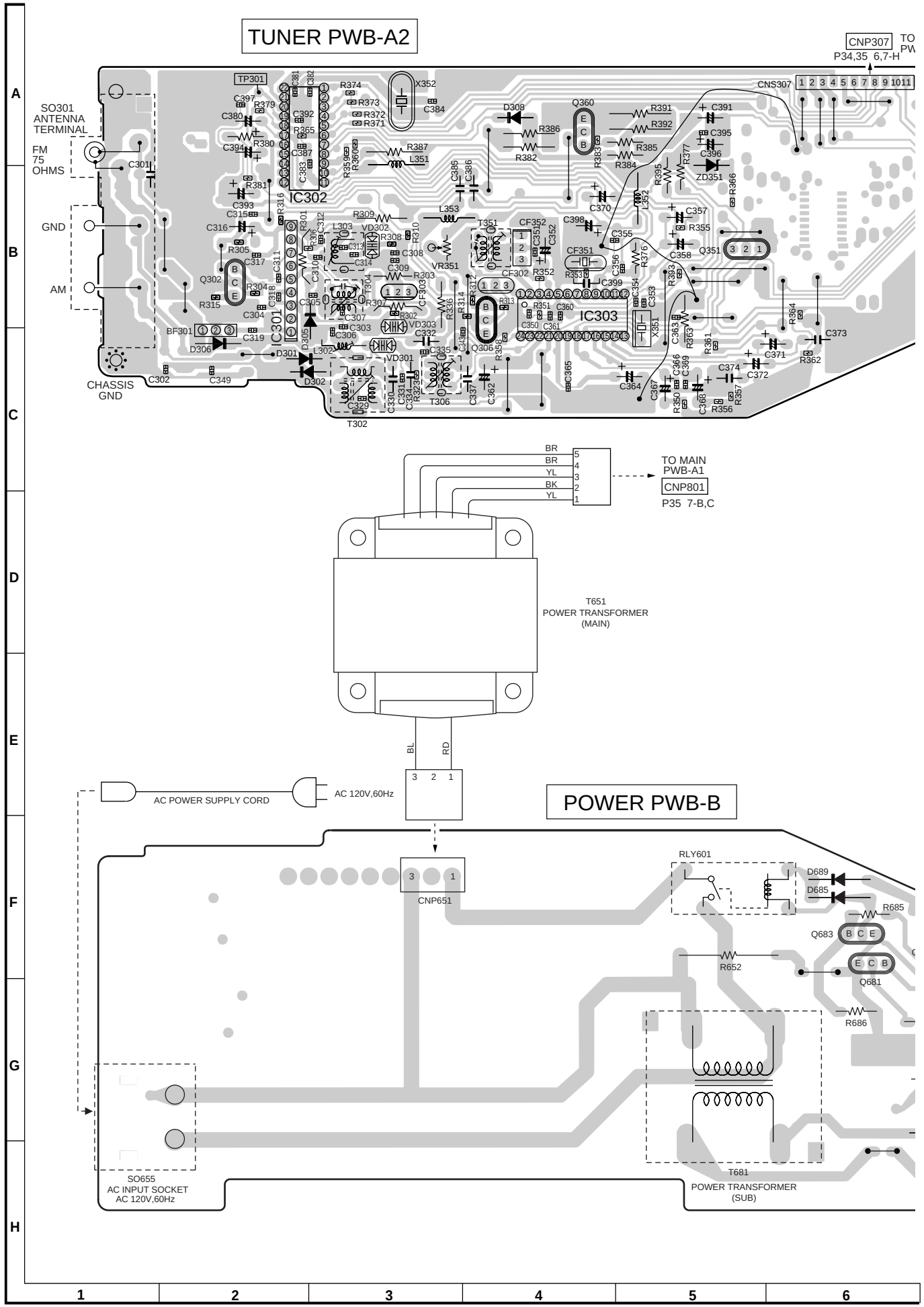
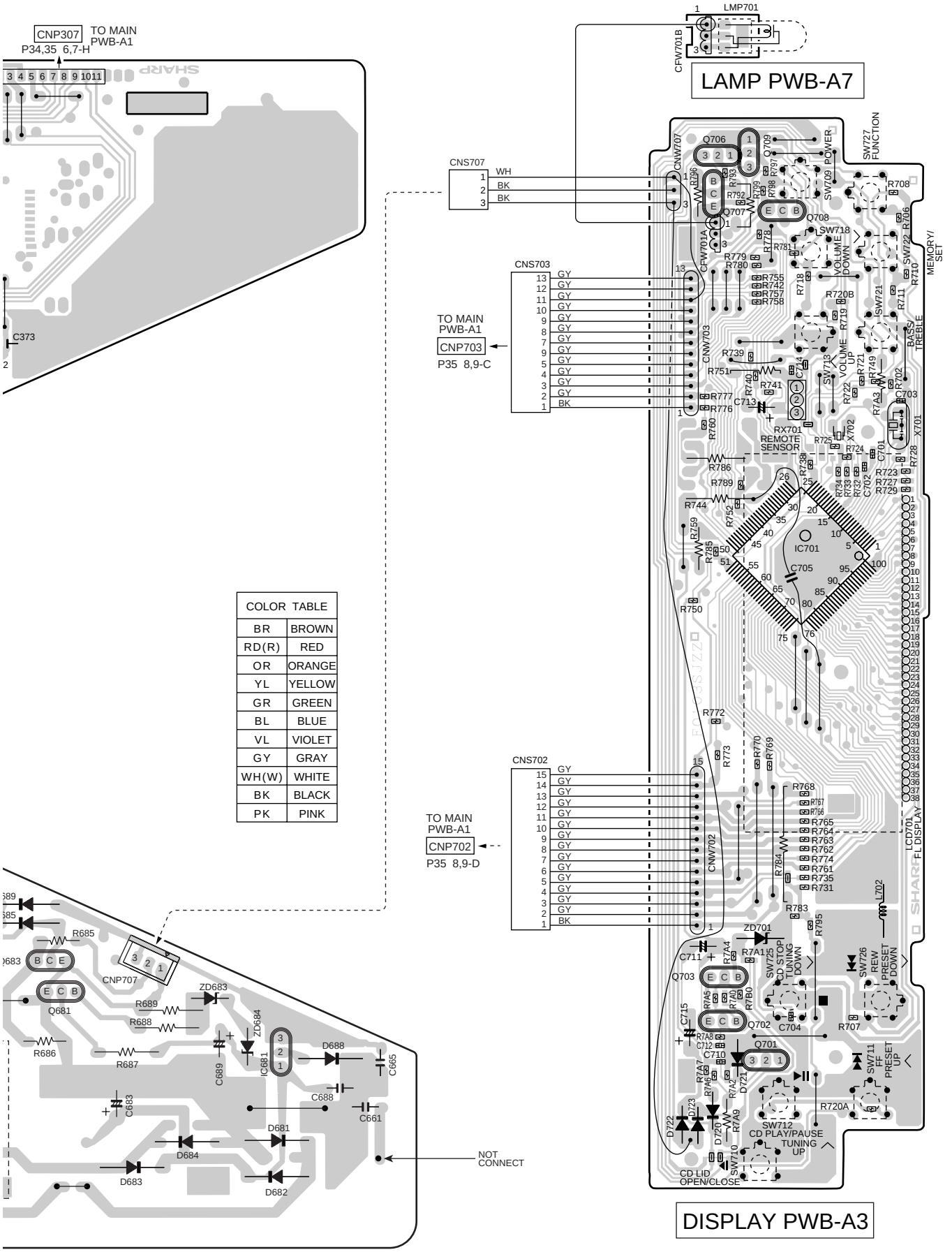


Figure 36 WIRING SIDE OF P.W.BOARD (3/4)



COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

7	8	9	10	11	12

Figure 37 WIRING SIDE OF P.W.BOARD (4/4)

TROUBLESHOOTING

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn off the power, and wipe the lens softly using a cleaning paper moistened with commercially available cleaning solution so as not to damage it.
Be careful not to touch the lens with bare hands.

Dust gradually accumulates on the objective lens during use, and it may degrade performance.
To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has ▲ the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continues to turn, press the stop button.

CAUTION

- The CD lens cleaner should be effective for 30 - 50 operations, however if the brushes become worn out earlier then please replace the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD player or on computer CD ROM drives.

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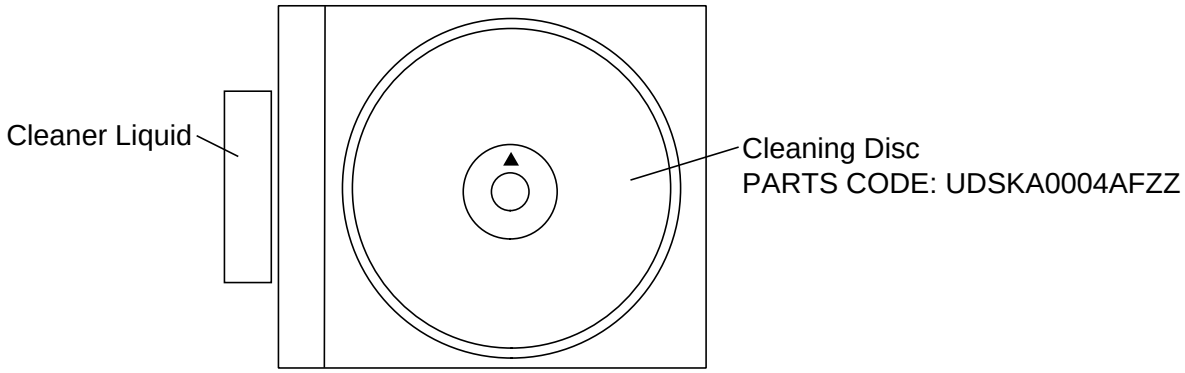
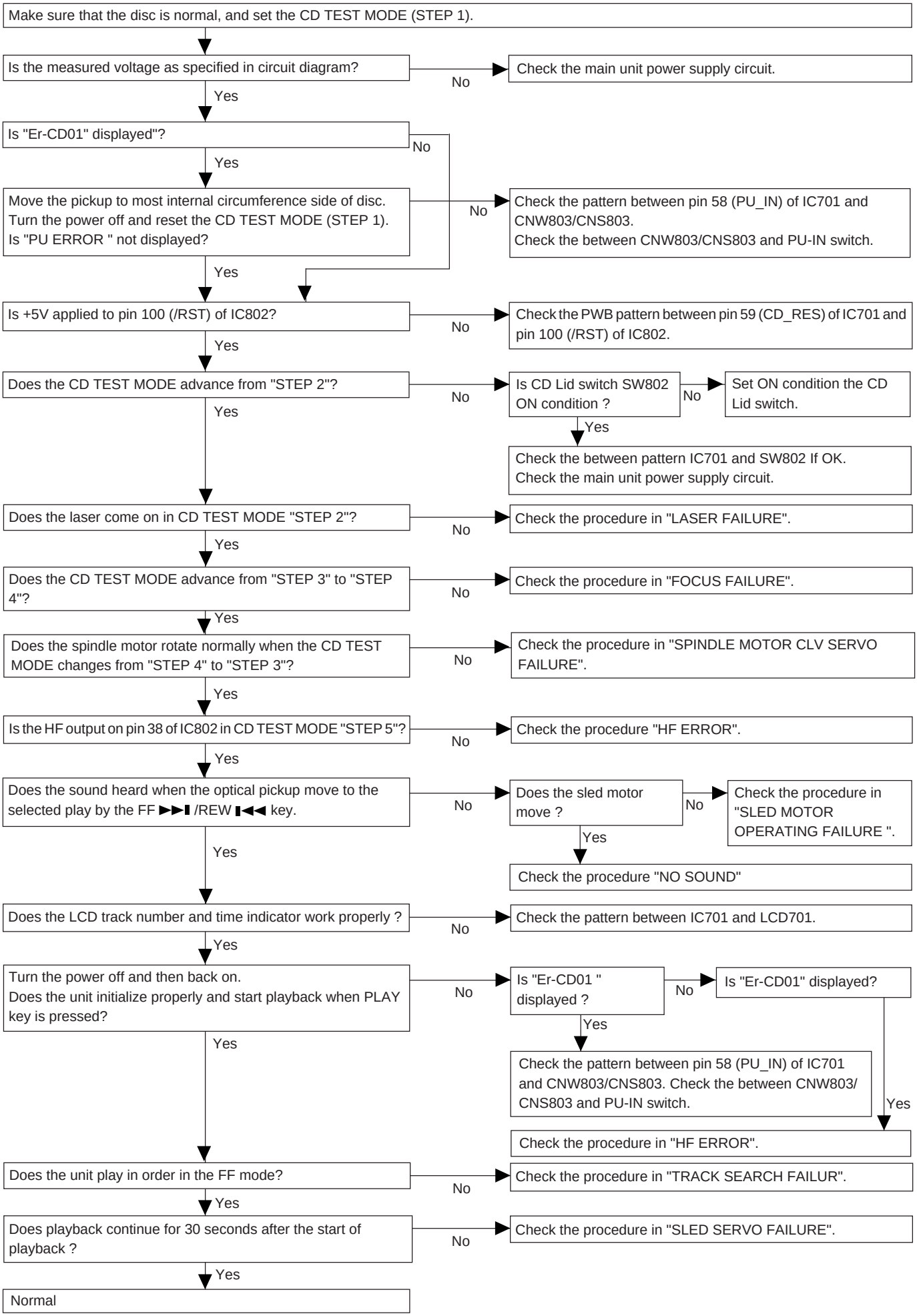



Make sure that the disc is normal, and set the CD TEST MODE (STEP 1).
Is the measured voltage as specified in circuit diagram?
No
Check the main unit power supply circuit.
Yes
Is "Er-CD01" displayed"?
No
Yes
Move the pickup to most internal circumference side of disc.
Turn the power off and reset the CD TEST MODE (STEP 1).
Is "PU ERROR " not displayed?
No
Check the pattern between pin 58 (PU_IN) of IC701 and CNW803/CNS803.
Check the between CNW803/CNS803 and PU-IN switch.
Yes
Is +5V applied to pin 100 (/RST) of IC802?
No
Check the PWB pattern between pin 59 (CD_RES) of IC701 and pin 100 (/RST) of IC802.
Yes
Does the CD TEST MODE advance from "STEP 2"?
No
Is CD Lid switch SW802 ON condition ?
No
Set ON condition the CD Lid switch.
Yes
Check the between pattern IC701 and SW802 If OK.
Check the main unit power supply circuit.
Yes
Does the laser come on in CD TEST MODE "STEP 2"?
No
Check the procedure in "LASER FAILURE".
Yes
Does the CD TEST MODE advance from "STEP 3" to "STEP 4"?
No
Check the procedure in "FOCUS FAILURE".
Yes
Does the spindle motor rotate normally when the CD TEST MODE changes from "STEP 4" to "STEP 3"?
No
Check the procedure in "SPINDLE MOTOR CLV SERVO FAILURE".
Yes
Is the HF output on pin 38 of IC802 in CD TEST MODE "STEP 5"?
No
Check the procedure "HF ERROR".
Yes
Does the sound heard when the optical pickup move to the selected play by the FF ▶▶▮ /REW ▮◀◀ key.
No
Does the sled motor move ?
No
Check the procedure in "SLED MOTOR OPERATING FAILURE ".
Yes
Check the procedure "NO SOUND"
Yes
Does the LCD track number and time indicator work properly ?
No
Check the pattern between IC701 and LCD701.
Yes
Turn the power off and then back on.
Does the unit initialize properly and start playback when PLAY key is pressed?
No
Is "Er-CD01 " displayed ?
No
Is "Er-CD01" displayed?
Yes
Check the pattern between pin 58 (PU_IN) of IC701 and CNW803/CNS803. Check the between CNW803/CNS803 and PU-IN switch.
Yes
Check the procedure in "HF ERROR".
Yes
Does the unit play in order in the FF mode?
No
Check the procedure in "TRACK SEARCH FAILUR".
Yes
Does playback continue for 30 seconds after the start of playback ?
No
Check the procedure in "SLED SERVO FAILURE".
Yes
Normal

• Laser failure.

Is +6.2V applied to the emiter of Q861 ?
- No → Check the PWB pattern between emiter of Q607 and emiter of Q861.
- Yes ↓

Is +5V applied to the collector of Q861 ?
- No → Check the peripheral parts of IC804 and Q861.
- Yes ↓

Is +5V applied to the pin 62 (VDD) of IC802 ?
- No → Check the PWB pattern between collector of Q861 and pin 62 of IC802.
- Yes ↓

Is +5V applied to the pin 1 (VCC) of IC801 ?
- No → Check the PWB pattern between collector of Q861 and pin 1 of IC801.
- Yes ↓

Is 0V applied to the pin 57 (SEL) of IC802 ?
- No → Does the laser come on when pattern cut between pin 8 (SEL) of IC801 and pin 57 (SEL) of IC802 ?
  - Yes → Check the PWB pattern between IC701 and IC802 (BUCK/CCE/BUS0~3)
  - No ↓
- Yes ↓

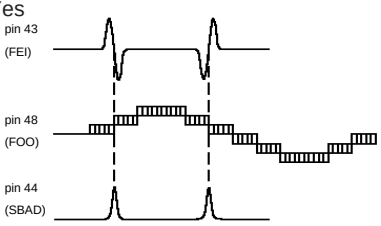
Is approx. 2V applied to the collector of Q801.
- No → Check the peripheral parts of IC801 and Q801. If it is normal, the optical pickup is faulty.
- Yes ↓

Check CNP802/CNW3. If it is normal, the optical pickup is faulty.

• Focus failure.

Does the optical pickup move up and down when the disc is removed?
- No → Check as stated in item "FOCUS SERVO SAWTOOTH WAVE FAILURE".
- Yes ↓

Is the following waveform ouput at the pin 43 (FEI) of IC802 when the disc is set?
- No → Check the periphery of IC801 and CNP802/CNW3. Is it normal?
  - Yes → The optical pickup is faulty.
- Yes ↓

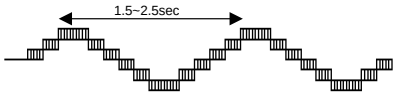


Is the waveform shown above input at the pin 44 (SBAD) of IC802?
- No → Check the pattern between pin 13 of IC801 and pin 44 of IC802. Check the periphery of IC801 and CNP802/CNW3.
- Yes ↓

IC801 is faulty.

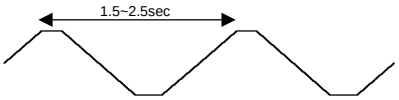
• Focus servo sawtooth wave failure.

Is sawtooh wave output to the pin 48 (FOO) of IC802 ?
- No → IC802 is faulty.
- Yes



Is +6.2V applied to the pins 21 and 22 (VCC) of IC804 ?
- No → Check the PWB pattern between emiter of Q607 and IC804.
- Yes

Is sawtooth wave obtained between pins 26 and 27 of IC804 ?
- No → Is +5V applied to the pin 7 (MUTE) of IC804 ?
  - No → Check the PWB pattern between pin 7 of IC804 and pin 60 (CD STB) of IC701.
  - Yes → Check the PWB pattern between pin 48 (FOO) of IC802 and pins 24 and 25 of IC804. If OK. IC804 is faulty.
- Yes



Is sawtooth wave obtained between pins 13 and 16 of CNP802/CNW3 ? (as shown above)
- No → Check the PWB pattern between CNP802/CNW3 and IC804.
- Yes

CNP802/CNW3 connection failure or optical pickup failure.

• Spindle motor clv servo failure.

Is following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 3" is changed to " STEP 4" ?
- No → Check the procedure in "HF ERROR". If OK. IC802 is faulty.
- Yes

Is above wave obtained between pins 11 and 12 of IC804 ?
- No → Check the PWB pattern between pin 55 (DMO) of IC802 and pins 9 and 10 of IC804. If OK. IC804 is faulty.
- Yes

Is above wave obtained between pins 9 and 12 of CNP802/CNW3 ?
- No → Check the PWB pattern between CNP802/CNW3 and IC804.
- Yes

CNP802/CNW3 connection failure or optical pickup failure.

• HF error.

Is output (tracking error signal) obtained at the pins 46 (TEI) and 47 (TEZI) of IC802 the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 3 and 8 of CNP802/CNW3.

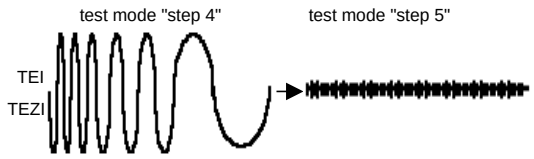
No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. Is it normal ?

No → IC801 is faulty.

Yes → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 19 of IC804. Check the periphery of IC804 and CNP802/CNW3. If OK. Optical pickup failure.

Yes



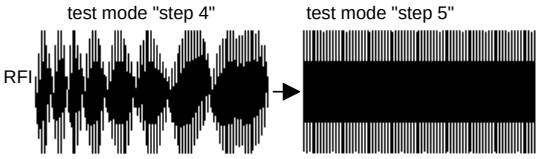
Is output (HF signal) obtained at the pin 38 (RFI) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 4 and 5,6 of CNP802/CNW3.

No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 19 (RFGO) of IC801 and pins 38 (RFI) of IC802. If OK. IC801 is faulty

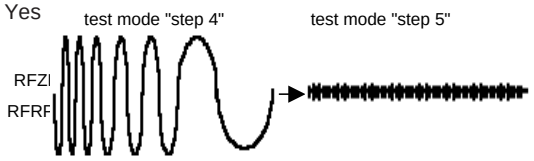
Yes



Is output (HF signal) obtained at the pins 41 (RFZI) and 42 (RFRP) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Check the periphery of IC801. Check the PWB pattern between pin17 (RFRP) of IC801 and pins 41 (RFZI) and 42 (RFRP) of IC802. If OK. IC801 is faulty.

Yes



Is the following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 4" or "STEP 5"?

No → Check the periphery pins 28~32 of IC802. If OK. IC802 failure.

Yes

Normal.

• No sound.

No sound from both L and R-ch?

No → Check the interval between the pins 82 or 85 of IC802 and the pins 1 or 15 of IC601.

Yes

Is +4.5V applied to pin 83 (DVDD) of IC802?

No → Check the PWB pattern between R819 and Q861.

Yes

Is signal of pins 82 and 85 of IC802 output?

No → Check the peripheral parts of IC802. If OK, IC802 is faulty.

Yes

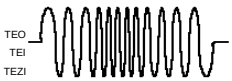
The main PWB is faulty.

• Track search failure

Does the sled motor run in FF/REW state when the SERVO TEST MODE "STEP1" is set?
- No → Check as stated in item "SLED MOTOR OPERATION FAILURE".
- Yes ↓

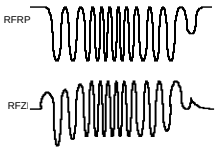
Is the following wave output to the pin 49 (TRO) of IC802 during track search in normal playback?
- No → IC802 failure.
- Yes ↓

Is the following wave output to the pins 12 (TEO) of IC801 during track search in normal playback?
- No → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 19 of IC804. Check the PWB pattern between pins 17 and 18 of IC804 and Optical pickup. If OK. Optical pickup failure.
- Yes ↓



Is the above wave output to the pins 46 (TEI) and 47 (TEZI) of IC802 during track serch in normal playback?
- No → Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. If OK. IC801 failure.
- Yes ↓

Is the following wave output to the pin 41 (RFZI) and 42 (RFRP) of IC802 during track search in normal playback?
- No → Check the PWB pattern between pin 17 (RFO) and 18 (RFIS), 19 (RFRP) of IC801 and pins 41 and 42 of IC802. If OK. IC801 failure.
- Yes ↓

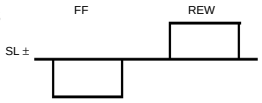


Normal.

• Sled motor operation failure.

Is following sled feed signal output the pin 53 (FMO) of IC802 when FF ▶▶▮ /REW ▮◀◀ key is pressed after the CD TEST MODE "STEP 1" is seted?
- No → C801 is faulty.
- Yes ↓

Is following sled feed signal output the pins 3 and 4 of IC804 when FF ▶▶▮ /REW ▮◀◀ key is pressed after the CD TEST MODE "STEP 1" is seted?
- No → Check the PWB pattern between pin 53 of IC802 and pins 3 and 4 of IC804.
- Yes ↓



Is sled feed signal output the pins 1 and 2 of IC804?
- No → Check the peripheral parts of IC804. If OK, IC804 is faulty.
- Yes ↓

Is sled feed voltage applied between both terminals of sled motor?
- No → Check the CNW803/CNS803.
- Yes ↓

Check the CD mechanism (periphery of sled motor). If the sled motor does not run when DC2.0V is applied to both terminals of sled motor, the sled motor is faulty.

• Sled servo failure.

Is following sled signal output the pin 53 (FMO) of IC802 during playback?
- No → IC802 is faulty.
- Yes ↓

Normal.

FUNCTION TABLE OF IC

IC401 VHiLC75342M-1: Function/Volume Equalizer (LC75342M)

Pin No.	Port Name	Function
1	DI	Serial data and clock input pin for control.
2	CE	Chip enable pin. Data written into an internal latch in a timing of [H] -> [L]. Each analog switch is activated. Data transfer enabled at [H] level.
3	VSS	Ground pin.
4	TEST	Electronic volume control pin. To be set to the VSS potential.
5	LOUT	Volume + equalizer output pin.
6	LBASS2	Bass-band filter comprising capacitor and resistor connection pin.
7	LBASS1	Bass-band filter comprising capacitor and resistor connection pin.
8	LTRE	Capacitor connection pin comprising treble band filter.
9	LIN	Volume + equalizer input pin.
10	LSEL0	Input selector output pin.
11	L4	Input signal pin.
12*	L3	Input signal pin.
13	L2	Input signal pin.
14	L1	Input signal pin.
15*	NC	No CONNECT pin. To be open or connected to VSS.
16*	NC	No CONNECT pin. To be open or connected to VSS.
17	R1	Input signal pin.
18	R2	Input signal pin.
19*	R3	Input signal pin.
20	R4	Input signal pin.
21	RSEL0	Input selector output pin.
22	RIN	Volume + equalizer input pin.
23	RTRE	Capacitor connection pin comprising treble band filter.
24	RBASS1	Bass-band filter comprising capacitor and resistor connection pin.
25	RBASS2	Bass-band filter comprising capacitor and resistor connection pin.
26	ROUT	Volume + equalizer output pin.
27*	NC	No CONNECT pin. To be open or connected to VSS.
28	Vref	0.5 x VDD voltage generation block for analog ground. Capacitor of several 10µF to be connected between Vref and AWSS (VSS) as a counter measure against power ripple.
29	VDD	Supply pin.
30	CL	Serial data and clock input pin for control.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC401 VHiLC75342M-1: Function/Volume Equalizer (LC75342M)

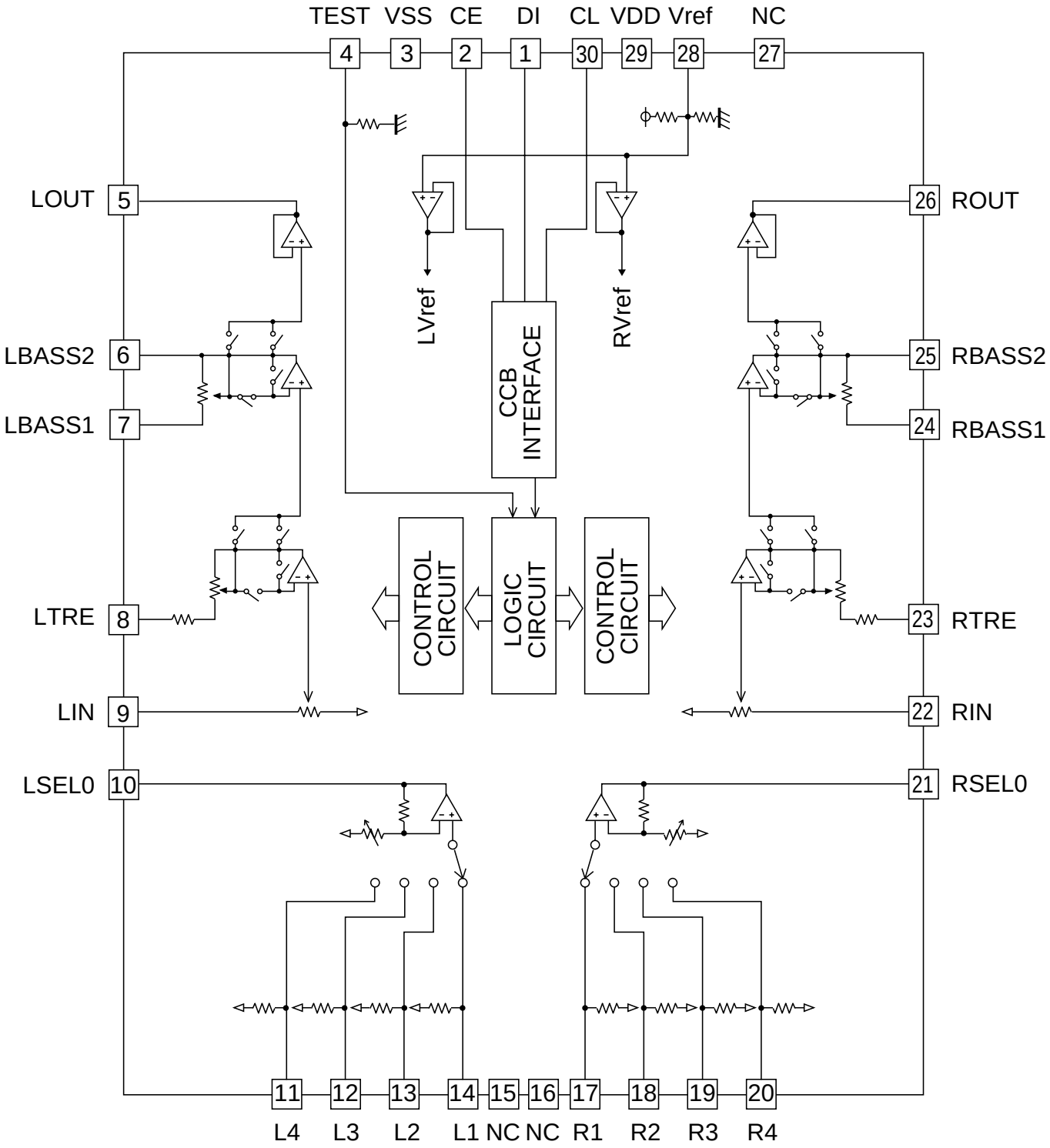


Figure 45 BLOCK DIAGRAM OF IC

IC701 RH-iX0039SJZZ: System Microcomputer/FL Driver (IX0039SJ) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1-4	COM3-COM0	Output	LCD common output terminal.
5-7	VLC3-VLC1	—	LCD power supply terminal.
8	VDD	Input	Microcomputer power supply +5V.
9	OSC2	Output	Oscillator ground terminal for main clock. f=8MHz
10	OSC1	Input	Oscillator ground terminal for main clock. f=8MHz
11	VSS	—	Microcomputer power supply GND.
12	XI	Input	Oscillator ground terminal for sub clock. f=32.768kHz
13	XO	Output	Oscillator ground terminal for sub clock. f=32.768kHz
14	MMOD	Input	Memory mode selection terminal.
15	VREF–	—	Power supply GND for AD converter.
16	KEY0 AN0/PA0	Input	CD lid status detection input.
17	KEY1 AN0/PA1	Input	Operation button input, Max-8 buttons.
18	KEY2 AN0/PA2	Input	Operation button input, Max-8 buttons.
19	KEY3 AN0/PA3	Input	MODEL/TUNER destination input.
20	KEY4 AN0/PA4	Input	Current detection of CD lid control motor. Used to decide the CD lid drive error to control it.
21*	KEY5 AN0/PA5	Input	CD servo auto adjustment mode selection input.
22*	KEY6 AN0/PA6	Input	Tape mechanism operating status detection input. Decides the F.P/CAM-SW status with A/D value.
23*	KEY7 AN7/PA7	Input	Tuner signal meter (S meter) voltage input terminal.
24	VREF+	Input	Power supply for A/D converter +5V.
25	TXD SBO0/P00	Output	Data output terminal to TUNER PLL IC.
26	RXD SBI0/P01	Input	Data input from TUNER PLL IC
27	SBT0/P02	Output	Synchronous clock output with TUNER PLL IC
28	SBO1/P03	Output	Enable output of TUNER PLL IC. "L" = OFF "H" = ON
29*	SBI1/P04	Output	Tape mechanism solenoid drive control output.
30*	SBT1/P05	Output	Tape mechanism motor drive control output.
31*	DK/BZER P06	Output	Recording/playback selection output of tape circuit. "H" = Recording mode, "L" = Playback mode
32	RST/P27	Input	Reset signal input
33*	RMOUT P10	Input	CLOCK/TIMER/SLEEP button input.
34*	P11	Input	Tape run/END detection input. Decided as tape run if pulse is input.
35*	TM2IO P12	Output	Recording bias oscillation circuit control output. "H" = Bias oscillation, "L" = oscillation stop.
36*	TM3IO P13	Output	Recording bias oscillation frequency selection control output.
37	TM4IO P14	Input	Power (POWER) button input detection.
38	IRQ0 P20	Input	Switches to the HALT mode when changing to . "L" at power failure detection input.
39	SENS IRQ1/P21	Input	Remote control signal input.
40	IRQ2 P22	Input	Synchronous clock input with RDS IC.
41*	IRQ3 P23	Input	Jog dial UP pulse input.
42*	IRQ4 P24	Input	Jog dial DOWN pulse input.
43	P30	Output	SURROUND control output.
44	P31	Output	POWER IC STAND-BY terminal CONTROL.
45	P32	Output	Power mute output. "H" = MUTE ON "L" = MUTE OFF
46	LED0 WE/P50	Output	CD servo power supply circuit control output. "H" = CD power ON "L" = CD power OFF
47	LED1 RE/P51	Output	Main TRANS RELAY CONTROL. "H" = ON "L" = OFF
48	LED2 CS/P52	Input	Data input from RDS IC.
49	LDE3/S51 A16/P53	Input	Radio stereo broadcast reception detection input. "L" = During stereo broadcast reception
50	LED4/S50 A17/P54	Input	Broadcast reception status detection input. "L" = During broadcasting signal reception
51	SEG49 P60/A0	Output	LCD backlight control signal output. "H" = Backlight ON, "L" = Backlight OFF
52*	SEG48 P61/A1	Output	
53	SEG47 P62/A2	Output	LED illumination control of electric JOG dial. "H" = ON "L" = OFF

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC701 RH-iX0039SJZZ: System Microcomputer/FL Driver (IX0039SJ) (2/2)

Pin No.	Terminal Name	Input/Output	Function
54	SEG46 P63/A3	Output	Electric JOG dial UP.
55*	SEG45 P64/A4	Output	Electric JOG dial DOWN.
56	SEG44 P65/A5	Output	Electric CD lid OPEN.
57	SEG43 P66/A6	Output	Electric CD lid CLOSE.
58	SEG42 P67/A7	Input	CD pickup position detection SW input. "L" = Innerst periphery
59	SEG41 P70/A8	Output	Reset signal output for TC9462F
60	SEG40 P71/A9	Output	ON/OFF output terminal of CD servo control IC. "H" = Servo ON "L" = Servo stand-by
61-64	SEG39 P72/A10-SEG36 P75/A13	Input/Output	Data input/output terminal for TC9462F control.
65	SEG35 P76/A14	Output	Data synchronous clock output for TC9462F.
66	SEG34 P77/A15	Output	Chip enable terminal for TC9462F. "L" = BUS terminal active
67	SEG33 P87/D7	Output	LCD segment output.
68	SEG32 P86/D6	Output	LCD segment output.
69-74	SEG31 P85/D5-SEG26 P80/D0	Output	LCD segment output
75-100	SEG25-SEG0	Output	LCD segment output

IC701 RH-iX0039SJZZ: System Microcomputer/FL Driver (IX0039SJ)

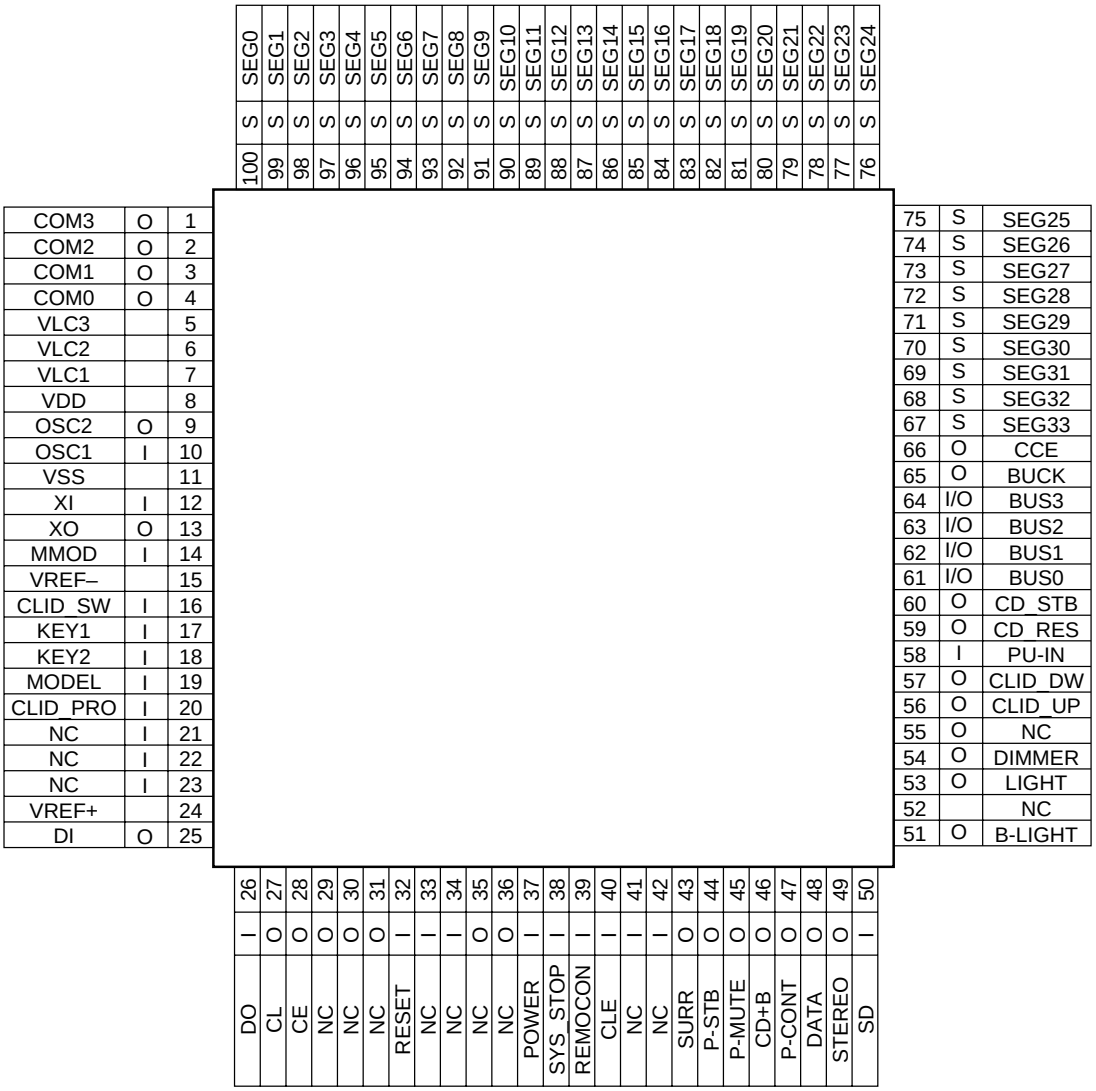
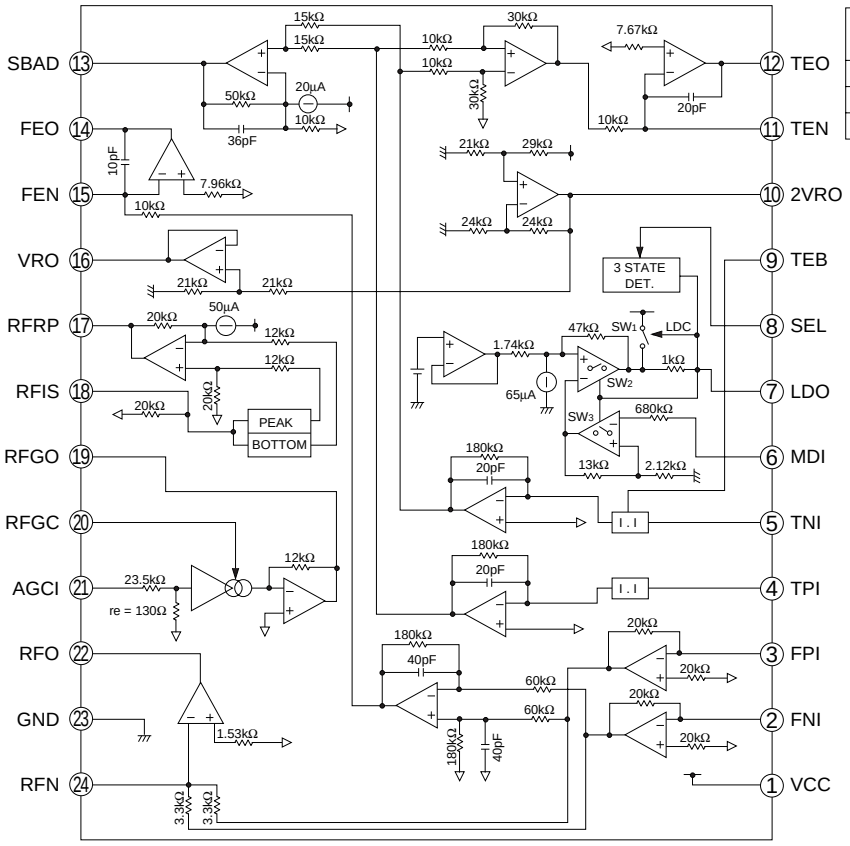


Figure 47 BLOCK DIAGRAM OF IC

IC801 VHiTA2109F/-1:Servo Pre Amp. (TA2109F)

Pin No.	Terminal Name	Input/Output	Function
1	VCC	—	Power voltage terminal
2	FNI	Input	Main beam amp input terminal
3	FPI	Input	Main beam amp input terminal
4	TPI	Input	Sub-beam amp input terminal
5	TNI	Input	Sub-beam amp input terminal
6	MDI	Input	Monitor photodiode amp input terminal
7	LDO	Output	Laser diode amp output terminal
8	SEL	Input	Laser diode control signal input and APC circuit ON/OFF signal input terminal
9	TEB	Input	Tracking error balance adjustment signal input terminal To be controlled by 3-value PWM signal. (PWM carrier = 88.2 kHz)
10	2VRO	Output	Standard voltage (2VR) output terminal. When Vcc = 5V, 2VR = 4.2V.
11	TEN	Input	Tracking error signal generation amp reversed phase input terminal
12	TEO	Output	Tracking error signal generation amp output terminal
13	SBAD	Output	Sub-beam addition signal output terminal
14	FEO	Output	Focus error signal generation amp output terminal
15	FEN	Input	Focus error signal generation amp reversed phase input terminal
16	VRO	Output	Standard voltage (VR) output terminal. When Vcc = 5V, VR = 2.1V.
17	RFRP	Output	Track count signal generation amp output terminal
18	RFIS	Input	RFRP detection circuit input terminal
19	RFGO	Output	RF signal output terminal
20	RFGC	Input	RF amplitude adjustment control signal input terminal The amplitude of RF signal can be controlled by using the 3-value PWM signal (PWM carrier = 88.2 kHz) which is output from the RFGC terminal of TC9432F.
21	AGCI	Input	RF signal amplitude adjustment amp input terminal
22	RFO	Output	RF signal generation amp output terminal
23	GND	—	GND terminal
24	RFN	Input	RF reversed phase input terminal

IC801 VHiTA2109F/-1:Servo Pre Amp. (TA2109F)



SEL	LDC		
	SW1	SW2	SW3
L	ON	OFF	OFF
HiZ	OFF	ON	ON
H	OFF	ON	ON

Figure 48 BLOCK DIAGRAM OF IC

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (1/3)

<table>
<tr><th>Pin No.</th><th>Port Name</th><th>Input/Output</th><th>Function</th></tr>
<tr><td>1*</td><td>TEST0</td><td>Input</td><td>Test mode terminal. To be opened usually.</td></tr>
<tr><td>2*
3*</td><td>/HSO
/UHSO</td><td>Output
Output</td><td>Playback speed mode flag output terminal.
<table>
<tr><th>/UHSO</th><th>/HSO</th><th>Playback speed</th></tr>
<tr><td>H</td><td>H</td><td>x1 speed playback</td></tr>
<tr><td>H</td><td>L</td><td>x2 speed playback</td></tr>
<tr><td>L</td><td>H</td><td>x4 speed playback</td></tr>
<tr><td>L</td><td>L</td><td>—</td></tr>
</table></td></tr>
<tr><td>4*</td><td>EMPH</td><td>Output</td><td>Sub-code Q data emphasis flag output terminal. "H": Emphasis ON "L": Emphasis OFF
The output polarity can be inverted by command.</td></tr>
<tr><td>5*</td><td>LRCK</td><td>Output</td><td>Channel clock (44.1 kHz) output terminal. "L": L channel "H": R channel
The output polarity can be inverted by command.</td></tr>
<tr><td>6</td><td>VSS</td><td>—</td><td>Digital ground terminal.</td></tr>
<tr><td>7*</td><td>BCK</td><td>Output</td><td>Bit clock (1.4122 MHz) output terminal.</td></tr>
<tr><td>8*</td><td>AOUT</td><td>Output</td><td>Audio data output terminal.</td></tr>
<tr><td>9</td><td>DOUT</td><td>Output</td><td>Digital out output terminal.</td></tr>
<tr><td>10*</td><td>MBOV</td><td>Output</td><td>Buffer memory over signal output terminal. "H": Over</td></tr>
<tr><td>11*</td><td>IPF</td><td>Output</td><td>Correction flag output terminal.
"H": When AOUT output is correction-disabled symbol in case of C2 correction output.</td></tr>
<tr><td>12*</td><td>SBOK</td><td>Output</td><td>Sub-code Q data CRCC judgment result output terminal. "H": When judgment result is OK.</td></tr>
<tr><td>13*</td><td>CLCK</td><td>Input/Output</td><td>Sub-code P-W data read clock output/input terminal. Selectable with command bit.</td></tr>
<tr><td>14</td><td>VDD</td><td>Input</td><td>Digital + power terminal.</td></tr>
<tr><td>15</td><td>VSS</td><td>—</td><td>Digital ground terminal.</td></tr>
<tr><td>16*</td><td>DATA</td><td>Output</td><td>Sub-code P-W data output terminal.</td></tr>
<tr><td>17*</td><td>SFSY</td><td>Output</td><td>Playback system frame sync signal output terminal.</td></tr>
<tr><td>18*</td><td>SBSY</td><td>Output</td><td>Sub-code block sync output terminal. "H": On S1 position when the sub-code sync is detected.</td></tr>
<tr><td>19*</td><td>SPCK</td><td>Output</td><td>Processor status signal read clock (176.4 kHz) output terminal.</td></tr>
<tr><td>20*</td><td>SPDA</td><td>Output</td><td>Processor status signal output terminal.</td></tr>
<tr><td>21*</td><td>COFS</td><td>Output</td><td>Correction system frame clock (7.35 kHz) output terminal.</td></tr>
<tr><td>22*</td><td>MONIT</td><td>Output</td><td>LSI internal signal monitor terminal.
It is possible to monitor the DSP internal flag and PLL system clock with the microcomputer command. Terminal for serial output of text data according to command.</td></tr>
<tr><td>23</td><td>VDD</td><td>Input</td><td>Digital + power terminal.</td></tr>
<tr><td>24</td><td>TESIO0</td><td>Input</td><td>Test input/output terminal. To be fixed to "L" usually.
Terminal to input the text data read clock according to command.</td></tr>
<tr><td>25</td><td>P2VREF</td><td>—</td><td>2VREF terminal for PLL system.</td></tr>
<tr><td>26*</td><td>HSSW</td><td>Output</td><td>VREF voltage in case of x2 speed/x4 speed.</td></tr>
<tr><td>27*</td><td>ZDET</td><td>Output</td><td>1-bit DAC zero detection flag output terminal.</td></tr>
<tr><td>28</td><td>PDO</td><td>Output</td><td>Terminal to output the phase difference between EFM signal and PLCK signal.</td></tr>
<tr><td>29*</td><td>TMAXS</td><td>Output</td><td>TMAX detection result output terminal. To be selected with command bit TMPS.</td></tr>
<tr><td>30</td><td>TMAX</td><td>Output</td><td>TMAX detection result output terminal. To be selected with command bit TMPS.
<table>
<tr><th>TMAX detection result</th><th>TMAX output</th></tr>
<tr><td>Longer than specific period</td><td>"P2VREF"</td></tr>
<tr><td>Shorter than specific period</td><td>"VSS"</td></tr>
<tr><td>Within specific period</td><td>"HIZ"</td></tr>
</table></td></tr>
<tr><td>31</td><td>LPFN</td><td>Input</td><td>Low-pass filter amp inverted input terminal.</td></tr>
<tr><td>32</td><td>LPFO</td><td>Output</td><td>Low-pass filter amp output terminal.</td></tr>
<tr><td>33</td><td>PVREF</td><td>Input</td><td>VREF terminal for PLL system.</td></tr>
<tr><td>34</td><td>VCOREF</td><td>Input</td><td>VCO center frequency standard level terminal. To be fixed to PVref usually.</td></tr>
<tr><td>35</td><td>VCOF</td><td>Output</td><td>VCO filter terminal.</td></tr>
<tr><td>36</td><td>AVSS</td><td>—</td><td>Analog system ground terminal.</td></tr>
<tr><td>37</td><td>SLCO</td><td>Output</td><td>Data slice level generation DAC output terminal.</td></tr>
<tr><td>38</td><td>RFI</td><td>Input</td><td>RF signal input terminal.</td></tr>
</table>

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (2/3)

Pin No.	Port Name	Input/Output	Function
39	AVDD	Input	Analog system power terminal.
40	RFCT	Input	RFRP signal center level input terminal.
41	RFZI	Input	RFRP zero cross input terminal.
42	RFRP	Input	RF ripple signal input terminal.
43	FEI	Input	Focus error signal input terminal.
44	SBAD	Input	Sub-beam addition signal input terminal.
45	TSIN	Input	Test input terminal. To be fixed to Vref usually.
46	TEI	Input	Tacking error input terminal. (Tracking servo ON: Taking-in).
47	TEZI	Input	Tracking error, zero cross input termina.l
48	FOO	Output	Focus equalizer output terminal.
49	TRO	Output	Tracking equalizer output terminal.
50	VREF	Input	Analog standard power terminal.
51	RFGC	Output	RF amplitude adjustment control signal output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
52	TEBC	Output	Tracking balance control signal output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
53	FMO	Output	Feed equalizer output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
54*	FVO	Output	Speed error signal or feed search EQ output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
55	DMO	Output	Disc equalizer output terminal. 3-value PWM signal is output. (PWM carrier = DSP system 88.2 kHz, sync with PXO)
56	2VREF	Input	Analog standard power terminal (2xVREF)
57	SEL	Output	APC circuit ON/OFF signal output terminal. When laser is ON and UHS = L, "Hi-Z". When UHS = H, "H" output is obtained.
58*	FLGA	Output	Internal signal monitor external flag output terminal. TEZC, FOON, FOK and RFZC signals can be selected with command.
59*	FLGB	Output	Internal signal monitor external flag output terminal. DFCT, FOON, FMON and RFZC signals can be selected with command.
60*	FLGC	Output	Internal signal monitor external flag output terminal. TRON, TRSR, FOK, and SRCH signals can be selected with command.
61*	FLGD	Output	Internal signal monitor external flag output terminal. TRON, DMON, HYS and SHC signals can be selected with command.
62	VDD	Input	Digital + power terminal.
63	VSS	—	Digital ground terminal.
64* 65* 66* 67*	IO0 IO1 IO2 IO3	Input/Output	General-use I/O port. The input port and output port can be selected with command. In case of input port the terminal state (H/L) can be read with the read command. In case of output port the terminal state (H/L/HiZ) can be controlled with command.
68*	/DMOUT	Input	Terminal to set the mode to output 2-value PWM of feed equalizer from IO0,1 terminal and 2-value PWM of disc equalizer from IO2,3 terminal. "L" active
69*	/CKSE	Input	To be opened usually.
70*	/DACT	Input	DAC test mode terminal. To be opened usually.
71	TESIN	Input	Test input terminal (externally provided VCO clock input terminal). To be fixed to "L" usually.
72	TESIO1	Input	Test input/output terminal. To be fixed to "L" usually.
73	VSS	—	Digital ground terminal.
74	PXI	Input	DSP system clock oscillation circuit input terminal. To be fixed to "L" usually.
75*	PXO	Output	DSP system clock oscillation circuit output terminal.
76	VDD	Input	Digital + power terminal.
77	XVSS	—	System clock oscillation circuit ground terminal.
78	XI	Input	System clock oscillation input terminal.
79	XO	Output	System clock oscillation circuit output terminal.
80	XVDD	Input	System clock oscillation circuit + power terminal.
81	DVSR	Input	R channel D/A converting section power terminal.
82	RO	Output	R channel data forward rotation output terminal.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (3/3)

Pin No.	Port Name	Input/Output	Function
83	DVDD	Input	D/A converting section power terminal.
84	DVR	Input	Reference voltage terminal.
85	LO	Output	L channel data forward rotation output terminal.
86	DVSL	Input	L channel D/A converting section power terminal.
87*	TEST1	Input	Test mode terminal. To be opened usually.
88*	TEST2	Input	Test mode terminal. To be opened usually.
89*	TEST3	Input	Test mode terminal. To be opened usually.
90-93	BUS0-BUS3	Input/Output	Microcomputer interface data input/output terminal.
94	VDD	Input	Digital + power terminal.
95	VSS	—	Digital ground terminal.
96	BUCK	Input	Microcomputer interface clock input terminal.
97	/CCE	Input	Microcomputer interface chip enable signal input terminal. "L": BUS0 to 3 is active.
98*	TEST4	Input	Test mode termina. To be opened usually.
99*	/TSMOD	Input	Local test mode selection terminal.
100	/RST	Input	Reset signal input terminal. "L": Reset.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F)

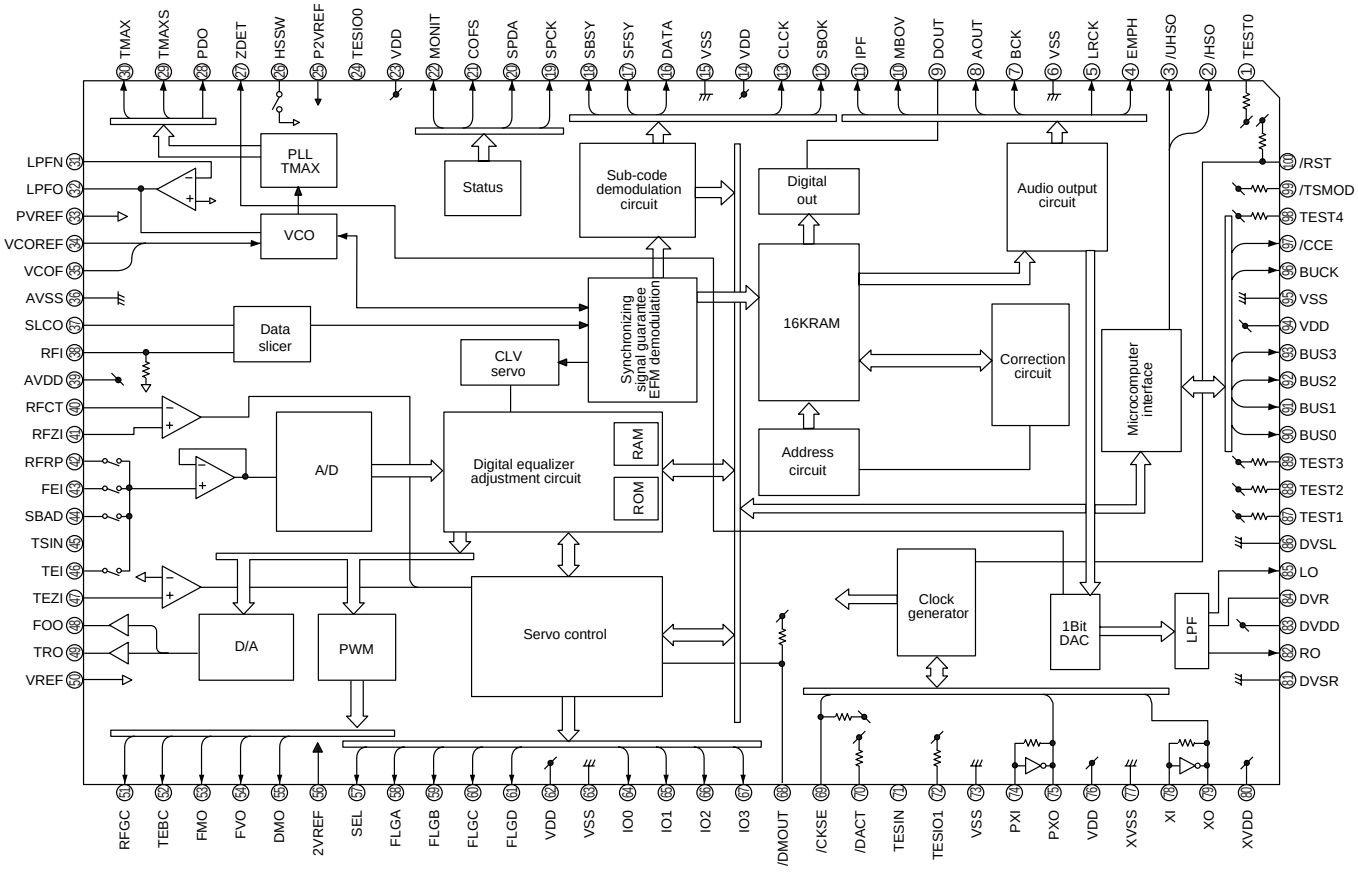


Figure 51 BLOCK DIAGRAM OF IC

IC804 VHiMM1469XH-1: Focus/Tracking/Spin/Sled Driver (MM1469XH)

Pin No.	Port Name	Function
1	CH1-OUT-A	Driver CH1 negative output
2	CH1-OUT-B	Driver CH1 positive output
3	CH1-IN-A	Driver CH1 input
4	CH1-IN-B	Driver CH1 input, gain adjustment pin
5	Tr-B	Connect to external transistor base
6	VREG-OUT	Constant voltage output, connects to external transistor collector
7	MUTE	Driver mute control input
8	GND	GND
9	CH2-IN-B	Driver CH2 input, gain adjustment pin
10	CH2-IN-A	Driver CH2 input
11	CH2-OUT-B	Driver CH2 positive output
12	CH2-OUT-A	Driver CH2 negative output
13	Substrate GND	Substrate GND
14*	OP-OUT	Operational amplifier output
15*	OP-IN(–)	Operational amplifier input, negative
16*	OP-IN(+)	Operational amplifier input, positive
17	CH3-OUT-A	Driver CH3 negative output
18	CH3-OUT-B	Driver CH3 positive output
19	CH3-IN-A	Driver CH3 input
20*	CH3-IN-B	Driver CH3 input, gain adjustment pin
21	Vcc	Vcc
22	Vcc	Vcc
23	BIAS-IN	Bias amplifier input
24	CH4-IN-B	Driver CH4 input, gain adjustment pin
25	CH4-IN-A	Driver CH4 input
26	CH4-OUT-B	Driver CH4 positive output
27	CH4-OUT-A	Driver CH4 negative output
28	Substrate GND	Substrate GND

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.
GND (lowest potential) is connected to the frame of pin center.

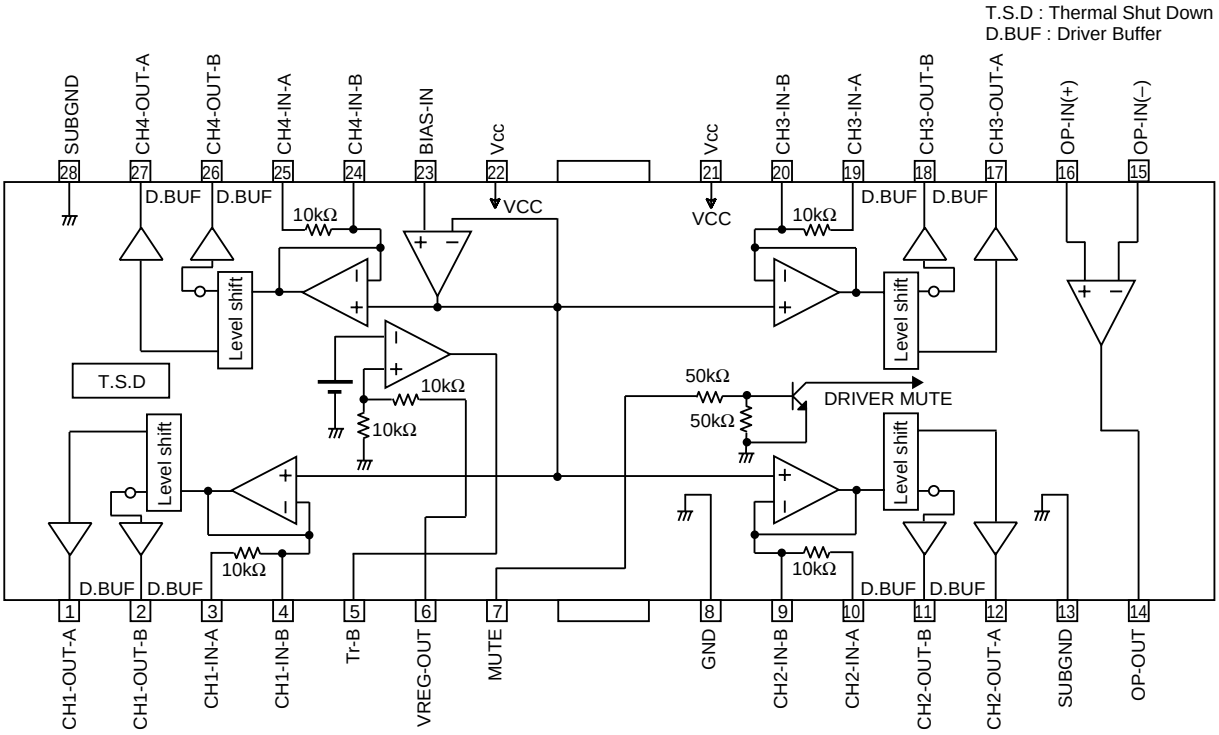
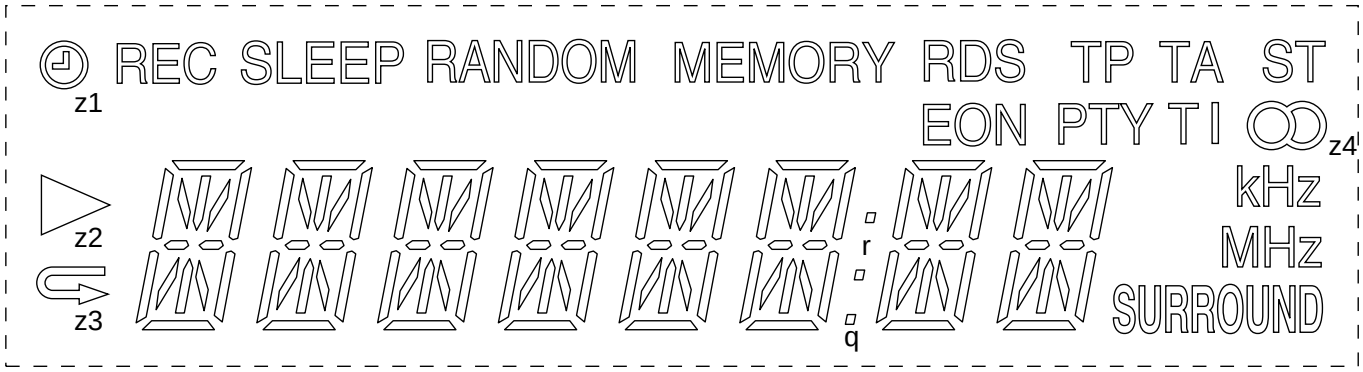


Figure 52 BLOCK DIAGRAM OF IC

LCD701: RV-LX0012SJZZ LCD Display



PinNo	com1	com2	com3	com4
1	com1			
2		com2		
3			com3	
4				com4
5	z1	b1	c1	z2
6	h1	j1	l1	k1
7	g1	n1	m1	d1
8	a1	p1	f1	e1
9	REC	b2	c2	z3
10	h2	j2	l2	k2
11	g2	n2	m2	d2
12	a2	p2	f2	e2
13	SLEEP	b3	c3	MHz
14	h3	j3	l3	k3
15	g3	n3	m3	d3
16	a3	p3	f3	e3
17	RANDOM	b4	c4	kHz
18	h4	j4	l4	k4
19	g4	n4	m4	d4
20	a4	p4	f4	e4
21	MEMORY	b5	c5	z4

PinNo	com1	com2	com3	com4
22	h5	j5	l5	k5
23	g5	n5	m5	d5
24	a5	p5	f5	e5
25	RDS	b6	c6	ST
26	h6	j6	l6	k6
27	g6	n6	m6	d6
28	a6	p6	f6	e6
29	r	b7	c7	q
30	h7	j7	l7	k7
31	g7	n7	m7	d7
32	a7	p7	f7	e7
33	TP	b8	c8	
34	h8	j8	l8	k8
35	g8	n8	m8	d8
36	a8	p8	f8	e8
37	EON	PTY	TI	TA
38				SRS(0)
39				com4
40			com3	
41		com2		
42	com1			

Figure 53 LCD SEGMENT

–MEMO–

SHARP PARTS GUIDE

COMPACT AUDIO SYSTEM

MODEL XL-3000

XL-3000 Compact Audio System consisting of XL-3000 (main unit) and CP-XL3000U (speaker system).

MODEL XL-3000C

XL-3000C Compact Audio System consisting of XL-3000C (main unit) and CP-XL3000U (speaker system).

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. No.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

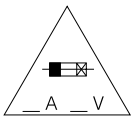
VCC ..... Ceramic type
VCK ..... Ceramic type
VCT ..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN ..... Cylindrical type (without lead wire)
VC • • TV ..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS ..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN ..... Cylindrical type (without lead wire)
VR • • TV ..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.



CAUTION:FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F651,F652 3.15A, 125V/ F653 1.6A, 125V FUSES.

ATTENTION:POUR ASSURER UNE LONGUE PROTECTION CONTRE UN INCENDIE, REMPLACER SEULEMENT PAR UN FUSIBLE DE TYPE F651,F652 3.15A, 125V/ F653 1.6A, 125V.

For Canada only

CAUTION: FOR CONTINUED SAFETY, REPLACE THE FUSE COVER OF F653 AFTER SERVICING.

ATTENTION: AFIN DE NE PAS COMPROMETTRE LA SÉCURITÉ DE L'APPAREIL, REMETTRE LE COUVERCLE DE FUSIBLE DE F653 EN PLACE APRÈS LE DÉPANNAGE.

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

INTEGRATED CIRCUITS

IC201	VHIKIA4558P-1	J	AC	Surround Control,KIA4558P
IC301	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC302	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC303	VHILA1832S/-1	J	AN	FM IF Det./FM Mpx./AM IF, LA1832S
IC401	VHILC75342M-1	J	AN	Function/Volume Equalizer, LC75342M
IC601	VHISTK40202-1	J	AW	Power AMP.,STK40202
IC681	VHIAN78L05/-1	J	AE	Constant Voltage Regulator, AN78L05
IC701	RH-IX0039SJZZ	J		System Microcomputer/FL Driver, IX0039SJ
IC801	VHITA2109F/-1	J	AL	Servo Pre Amp.,TA2109F
IC802	VHITC9462F/-1	J	AZ	Servo/Signal Control,TC9462F
IC804	VHIMM1469XH-1	J	AN	Focus/Tracking/Spin/Sled Driver, MM1469XH
IC805	VHITA7291S/-1	J	AH	CD Lid Motor Driver,TA7291S

TRANSISTORS

Q101	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q102	VSKTA1268GR-1	J	AC	Silicon,PNP,KTA1268 GR
Q103,104	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q201	VS2SK246GR/-1	J	AB	FET,2SK246 GR
Q203	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q302	VS2SC535-C/-1	J	AC	Silicon,NPN,2SC535 C
Q306	VS2SC535-C/-1	J	AC	Silicon,NPN,2SC535 C
Q351	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q601,602	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q603	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q604,605	VS2SD2012Y/-1	J	AF	Silicon,NPN,2SD2012 Y
Q606	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q607	VS2SD2012Y/-1	J	AF	Silicon,NPN,2SD2012 Y
Q608	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q609	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q681	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q683	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q702,703	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q706	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q707,708	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q709	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q801	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q802	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q861	VS2SB562-C/-1	J	AD	Silicon,PNP,2SB562 C
Q901	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q902	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q903	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q904	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q907	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q908	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M

DIODES

D201	VHD1N4148//-1	J	AA	Silicon,1N4148
D301,302	VHD1N4148//-1	J	AA	Silicon,1N4148
D305	VHD1N4148//-1	J	AA	Silicon,1N4148
D306	VHD1N4148//-1	J	AA	Silicon,1N4148
D308	VHD1N4148//-1	J	AA	Silicon,1N4148
D401~403	VHD1N4004//-1	J	AB	Silicon,1N4004
D602	VHD1N4148//-1	J	AA	Silicon,1N4148
D604	VHD1N4148//-1	J	AA	Silicon,1N4148
⚠ D651~654	VHD1N5402M/-1	J	AE	Silicon,1N5402M
⚠ D657~660	VHD1N4004//-1	J	AB	Silicon,1N4004
D681~685	VHD1N4004//-1	J	AB	Silicon,1N4004
D688,689	VHD1N4004//-1	J	AB	Silicon,1N4004
D720~723	VHD1N4148//-1	J	AA	Silicon,1N4148
D801	VHPDB5306X+-1	J	AR	LED,DB5306X
D901,902	VHD1N4004//-1	J	AB	Silicon,1N4004
ZD351	VHEDZ5R1BSB-1	J	AC	Zener,5.1V,DZ5.1BSB
ZD601	VHEDZ130BSA-1	J	AC	Zener,13V,DZ13BSA
ZD602	VHEDZ8R2BSC-1	J	AB	Zener,8.2V,DZ8.2BSC
ZD683,684	VHEMTZJ160C-1	J	AB	Zener,16V,MTZJ16C
ZD701	VHEDZ3R3BSB-1	J	AB	Zener,3.3V,DZ3.3BSB
ZD901	VHEDZ240BSD-1	J	AB	Zener,24V,DZ24BSD
ZD902	VHEDZ5R6BSB-1	J	AC	Zener,5.6V,DZ5.6BSB

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

FILTERS

BF301	RFILR0008AWZZ	J	AE	Band Pass Filter
CF302,303	RFILF0004SJZZ	J	AG	FM RF,10.7 MHz
CF351	RFILF0003AWZZ	J	AK	FM IF
CF352	RFILA0003SJZZ	J	AF	AM IF

TRANSFORMERS

T302	RCILA0007SJZZ	J	AG	AM Tracking
T304	RCILI0005SJZZ	J	AF	FM IF
T306	RCILB0009SJZZ	J	AG	AM Band Coverage
T351	RCILI0004SJZZ	J	AF	AM IF
⚠ T651	RTRNP0055SJZZ	J		Power Transformer (Main)
⚠ T681	RTRNP0056SJZZ	J	AM	Power Transformer (Sub)

COILS

L302	RCILR0003SJZZ	J	AD	FM ANT. [FM RF]
L303	RCILB0010SJZZ	J	AG	FM OSC. [FM Band Coverage]
L351,352	VP-DH101K0000	J	AB	100 µH,Choke
L353	VP-DH102K0000	J	AB	1 mH,Choke
L601,602	RCILZ0024AWZZ	J	AC	3 µH,Choke
L603	VP-DH100K0000	J	AB	10 µH,Choke
L702	VP-DH2R2K0000	J	AB	2.2 µH,Peaking
L801	VP-DH100K0000	J	AB	10 µH,Choke
L802	VP-XHR82K0000	J	AC	0.82 µH
L803	VP-DH100K0000	J	AB	10 µH,Choke
L806	VP-DH100K0000	J	AB	10 µH,Choke
L808	VP-DH2R2K0000	J	AB	2.2 µH,Peaking

VARIABLE RESISTOR

VR351	RVR-M0999AFZZ	J	AB	10 kohm (B),Semi-VR [FM Mute Level]

VARIABLE CAPACITORS

VD301	VHCSVC348S/-1	J	AK	Variable Capacitance,SVC348S
VD302,303	VHCKDV147B/-1	J	AH	Variable Capacitance,KDV147B

VIBRATORS

X351	RCRM-0007SJZZ	J	AG	VCO,456 kHz
X352	RCRSP0006SJZZ	J	AF	Crystal,4.5 MHz
X701	RCRM-0008SJZZ	J	AG	Ceramic,8 MHz
X702	RCRSP0011AWZZ	J	AC	Crystal,32.768 kHz
X801	RCRSP0002SJZZ	J	AL	Crystal,16.93 MHz

CAPACITORS

C101,102	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C103	RC-EZ0002SJZZ	J		10 µF,50V,Electrolytic
C104	VCCSCY1HL3R0C	J		3 pF,50V
C105	VCKYPA1HB152K	J	AA	0.0015 µF,50V
C106	RC-EZ0002SJZZ	J		10 µF,50V,Electrolytic
C107	RC-EZ0003SJZZ	J		100 µF,50V
C108	VCKYPA1HB152K	J	AA	0.0015 µF,50V
C109	VCCSCY1HL3R0C	J		3 pF,50V
C110	VCKYPA1HB102K	J	AA	0.001 µF,50V
C111,112	RC-EZ0002SJZZ	J		10 µF,50V,Electrolytic
C113	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C114	RC-EZ0003SJZZ	J		100 µF,50V,Electrolytic
C116	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C120	RC-GZA227AF1C	J	AB	220 µF,16V,Electrolytic
C125,126	RC-GZW228AF1V	J	AF	2200 µF,35V,Electrolytic
C201,202	VCKYCY1HB562K	J	AA	0.0056 µF,50V
C203,204	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C208	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C209	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C211,212	VCKYCY1HB332K	J	AA	0.0033 µF,50V
C213,214	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
C215,216	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C301	VCKYPA1HF123Z	J		0.012 µF,50V
C302,303	VCKYCY1HB102K	J	AA	0.001 µF,50V
C304	VCKYCY1EF103Z	J	AA	0.01 µF,25V
C305	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C306	VCCUCY1HJ9R0D	J	AB	9 pF(UJ),50V
C307	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C308	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C309	VCKYCY1HB102K	J	AA	1000 pF,50V
C310	VCKYCY1EF223Z	J	AB	0.022 µF,25V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C311	VCCCCY1HH100J	J	AA	10 pF(CH),50V
C312	VCCSCY1HL330J	J		12 pF,50V
C313	VCCUCY1HJ6R0D	J	AB	6 pF(UJ),50V
C314	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C315	VCKYPA1HB101K	J	AA	100 pF,50V
C316	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C317	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C318	VCCSCY1HL5R0C	J		5 pF,50V
C319	VCCCCY1HH180J	J	AA	18 pF (CH),50V
C329	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C330	VCCCPA1HH120J	J	AA	12 pF (CH),50V
C331	VCKYCY1EF473Z	J	AB	0.047 µF,25V
C332	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C334	VCCUPA1HJ270J	J	AA	27 pF (UJ),50V
C335	VCKYCY1HB561K	J	AA	560 pF,50V
C337	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C343	VCCSCY1HL330J	J		33 pF,50V
C349	VCKYCY1HB102K	J	AA	0.001 µF,50V
C350,351	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C352	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C353,354	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C355	VCCSCY1HL220J	J		22 pF,50V
C356	VCKYCY1HB102K	J	AA	0.001 µF,50V
C357	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C358	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C360,361	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C362	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C363	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C364	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C365	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C366	VCKYCY1HB102K	J	AA	0.001 µF,50V
C367,368	RC-EZD105AF1H	J	AB	1 µF,50V,Electrolytic
C369	VCCSCY1HL560J	J		56 pF,50V
C370	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C371,372	RC-EZD105AF1H	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX273K	J	AA	0.027 µF,16V
C380	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C381	VCCCCY1HH120J	J	AA	12 pF (CH),50V
C382	VCCCCY1HH150J	J	AA	15 pF (CH),50V
C383	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C384	VCKYCY1HB102K	J	AA	0.001 µF,50V
C385	VCKYPA1HF103Z	J	AB	0.01 µF,16V
C386	VCKYPA1HB331K	J	AA	330 pF,50V
C387	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C391	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C392	VCKYCY1HB102K	J	AA	0.001 µF,50V
C393	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C394	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C395	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C396	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C397	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C398	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C399	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C401~404	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C407,408	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C410	VCKYPA1HB472K	J	AB	0.0047 µF,50V
C411,412	VCKYPA1HB331K	J	AA	330 pF,50V
C413	VCKYPA1HB472K	J	AB	0.0047 µF,50V
C414	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C415,416	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C417,418	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C419,420	VCKYCY1HB272K	J	AA	0.0027 µF,50V
C421~424	RC-QZA104AFYJ	J	AC	0.1 µF,50V,Mylar
C425,426	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C429	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
C430	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C431~433	VCKYCY1HB221K	J	AA	220 pF,50V
C603	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
C613~616	VCFYFA1HA104J	J	AC	0.1 µF,50V,Thin Film
C620	RC-GZV477AF1E	J	AC	470 µF,25V,Electrolytic
C621	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C622	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C624	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C625	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C626	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C627	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C628	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C629	RC-GZV477AF1E	J	AC	470 µF,25V,Electrolytic
C630	RC-GZW478AF1E	J	AG	4700 µF,25V,Electrolytic
C651	VCFYFA1HA104J	J	AC	0.1 µF,50V,Thin Film
C654	VCFYFA1HA104J	J	AC	0.1 µF,50V,Thin Film
C657~660	VCFYFA1HA104J	J	AC	0.1 µF,50V,Thin Film

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C661	VCKYPA1HB102K	J	AA	0.001 µF,50V
C665	VCFYFA1HA473J	J	AB	0.047 µF,50V,Thin Film
C683	RC-GZV228AF1C	J	AG	2200 µF,16V,Electrolytic
C688	VCFYFA1HA473J	J	AB	0.047 µF,50V,Thin Film
C689	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C701,702	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C703	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C704	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C705	VCKYPA1HF103Z	J	AB	0.01 µF,16V
C710	VCKYCY1EB103K	J	AA	0.01 µF,25V
C711	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C712	VCKYCY1EB103K	J	AA	0.01 µF,25V
C713	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C714	VCKYCY1HB561K	J	AA	560 pF,50V
C715	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C801	VCCSCY1HL101J	J	AA	100 pF,50V
C802	VCKYCY1EB153K	J	AA	0.015 µF,25V
C803	RC-EZD476AF1A	J	AC	47 µF,10V,Electrolytic
C804	VCKYCY1EB103K	J	AA	0.01 µF,25V
C805	VCKYCY1HB272K	J	AA	0.0027 µF,50V
C806	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C807	VCKYCY1EB333K	J	AC	0.033 µF,25V
C809	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C810	VCKYCY1HB102K	J	AA	0.001 µF,50V
C811	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C812	VCKYCY1EF103Z	J	AA	0.01 µF,25V
C813	RC-EZD107AF1A	J	AB	100 µF,10V,Electrolytic
C817~819	VCKYCY1EB104K	J		0.1 µF,25V
C820	VCKYCY1EF103Z	J	AA	0.01 µF,25V
C821	VCKYCY1EB104K	J		0.1 µF,25V
C822	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C823	VCKYCY1EF103Z	J	AA	0.01 µF,25V
C824,825	VCKYCY1EB563K	J		0.056 µF,25V
C826,827	VCCCCY1HH150J	J	AA	15 pF (CH),50V
C828	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C829	RC-EZD107AF1A	J	AB	100 µF,10V,Electrolytic
C830	VCKYCY1EB563K	J		0.056 µF,25V
C831,832	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C833,834	VCKYCY1HB471K	J	AA	470 pF,50V
C835	VCKYCY1EB563K	J		0.056 µF,25V
C836	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C837	VCKYCY1HB471K	J	AA	470 pF,50V
C837A	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C838	RC-EZD476AF1A	J	AC	47 µF,10V,Electrolytic
C839	VCCSCY1HL2R0C	J		2 pF,50V
C840,841	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C842	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C843	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C844	VCKYCY1HB682K	J	AA	0.0068 µF,50V
C845	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C846,847	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C848	VCCSCY1HL390J	J		39 pF,50V
C849	VCKYCY1EB563K	J		0.056 µF,25V
C850	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C851	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C852	VCQYKA1HM222J	J	AB	0.0022 µF,50V,Mylar
C853	VCKYPA1HB472K	J	AB	0.0047 µF,50V
C855	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C857	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C858	VCKYCY1EF103Z	J	AA	0.01 µF,25V
C859	RC-GZA477AF1A	J	AC	470 µF,10V,Electrolytic
C860	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C862	VCKYPA1HB102K	J	AA	0.001 µF,50V
C863	VCKYCY1HB471K	J	AA	470 pF,50V
C864~869	VCKYCY1HB221K	J	AA	220 pF,50V
C870	VCKYPA1HB102J	J	AA	0.001 µF,50V
C871	RC-EZD476AF1C	J	AC	47 µF,16V,Electrolytic
C872	VCKYCY1EB104K	J		0.1 µF,25V
C887	VCKYCY1HB272K	J	AA	0.0027 µF,50V
C901,902	RC-GZV227AF1H	J	AC	220 µF,50V,Electrolytic
C903,904	RC-EZ0002SJZZ	J		10 µF,50V,Electrolytic
C905,906	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic

RESISTORS

	VRS-CY1JB000J	J	AA	0 ohm,Jumper,0.8×1.55mm,Green
R7A0	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R7A1	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R7A2	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R7A3	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R7A4	VRS-CY1JB121J	J	AA	120 ohms,1/16W
R7A5	VRS-CY1JB103J	J	AA	10 kohm,1/16W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R7A6	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R7A7	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R7A8	VRS-CY1JB820J	J	AA	82 ohms,1/16W
R7A9	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R7B0	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R80A	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R80B	VRS-CY1JB683J	J	AA	68 kohms,1/16W
R80C	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R80E	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R80F	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R80G	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R101,102	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R103	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R104	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R105,106	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R108	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R109	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R110	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R111	VRD-ST2CD102J	J	AA	1 kohm,1/6W
⚠ R113,114	VRG-ST2EC101J	J	AB	100 ohm,1/4W,Fusible
R115	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R118	VRD-ST2EE473J	J	AA	47 kohms,1/4W
R119	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R120	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R121	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R122	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R123	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R124	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R201	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R202	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R203,204	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R205,206	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R207	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R208	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R209	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R210	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R211	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R212	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R213~216	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R217	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R218	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R301	VRD-ST2EE220J	J	AA	22 ohms,1/4W
R302	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R303	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R304	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R305	VRD-ST2CD681J	J	AA	680 ohms,1/6W
R306	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R307	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R308	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R309	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R310	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R312	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R313	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R314,315	VRS-CY1JB330J	J	AA	33 ohms,1/16W
R316	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R323	VRS-CY1JB683J	J	AA	68 kohms,1/16W
R336	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R350	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R351	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R352	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R353	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R355	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R356	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R357	VRS-CY1JB474J	J	AA	470 kohms,1/16W
R358	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R359	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R360	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R361,362	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R363	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R364	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R365	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R366	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R371~374	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R376	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R377	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R379	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R380	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R381	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R382	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R383	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R384	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R385	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R386	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R387	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R391,392	VRD-ST2EE391J	J	AA	390 ohms,1/4W
R393	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R395	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R401,402	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R405,406	VRD-ST2CD273J	J	AA	27 kohms,1/6W
R407,408	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R410	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R411	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R415~418	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R421,422	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R423~425	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R437,438	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R439,440	VRS-CY1JB392J	J	AA	3.9 kohms,1/16W
R603,604	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R607	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R608,609	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R611	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R612	VRD-ST2EE821J	J	AA	820 ohms,1/4W
R613	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R614	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R617	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R619,620	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R621	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R623,624	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R628	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R629	VRD-ST2EE821J	J	AA	820 ohms,1/4W
R634	VRD-ST2EE332J	J	AA	3.3 kohms,1/4W
R635,636	VRD-ST2CD273J	J	AA	27 kohms,1/6W
R637,638	VRD-ST2EE4R7J	J	AA	4.7 ohms,1/4W
⚠ R652	RR-HZ0001AWZZ	J	AE	4.7 Mohms,1/2W
R661,662	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R685	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R686	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R687	VRD-RT2HD272J	J	AA	2.7 kohms,1/2W
R688	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R689	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R702	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R706	VRS-CY1JB392J	J	AA	3.9 kohms,1/16W
R707	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R708	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R710	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R711	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R718	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R719	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R720A,B	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R721,722	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R723	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R724	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R725	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R727	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R728	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R729	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R731~735	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R738~742	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R744	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R749,750	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R751	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R752	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R755	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R757,758	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R759	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R760~770	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R772~774	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R776,777	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R778~781	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R783	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R784	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R785	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R786	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R789	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R792	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R793	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R795	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R796	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R797	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R798	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R799	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R801	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R802	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R804	VRS-CY1JB104J	J	AA	100 kohm,1/16W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R806	VRS-CY1JB153J	J	AA	15 kohms,1/16W
R807	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R808	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R809	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R810	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R811	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R812	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R813	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R814	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R815,816	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R817,818	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R819	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R820	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R821	VRD-ST2CD151J	J	AA	150 ohms,1/6W
R822	VRD-ST2EE330J	J	AA	33 ohms,1/4W
R823	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R824	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R825	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R826	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R827	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R828	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R829	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R830~837	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R843	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R851	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R852~855	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R861~863	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R873	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R874	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R876	VRS-CY1JB154J	J	AA	150 kohms,1/16W
R877	VRS-CY1JB683J	J	AA	68 kohms,1/16W
R879	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R901	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R902	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R904	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R905	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R910	VRD-ST2EE272J	J	AA	2.7 kohms,1/4W
R911	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R912	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R913	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R914	VRD-ST2CD471J	J	AA	470 ohms,1/6W

OTHER CIRCUITRY PARTS

CFW451,452	QCNWN0308SJZZ	J		Lead Wire
CFW701A,B	QCNWN0292SJZZ	J	AD	Flat Wire,3Pin
CFW852	QCNWN0303SJZZ	J		Lead Wire
CNP307	QCNCM010LAWZZ	J	AC	Plug,11Pin
CNP607	QCNCM999CAFZZ	J	AG	Plug,3Pin
CNP651	QCNCM017BSJZZ	J	AD	Plug,3Pin
CNP701	QCNCM999BAFZZ	J	AD	Plug,2Pin
CNP702	QCNCM999QAFZZ	J		Plug,15Pin
CNP703	QCNCM999NAFZZ	J		Plug,13Pin
CNP704	QCNCM004BAFZZ	J		Plug,2Pin
CNP707	QCNCM998CAFZZ	J	AE	Plug,3Pin
CNP801	QCNCM037ESJZZ	J	AD	Plug,5Pin
CNP802	QCNCW007RSJZZ	J	AF	Socket,16Pin
CNP803	QCNCM035FSJZZ	J	AD	Plug,6Pin
CNP804	QCNCM038BSJZZ	J		Plug,2Pin
CNP805	QCNCM004CAFZZ	J		Plug,3Pin
CNP806	QCNCM004CAFZZ	J		Plug,3Pin
CNS307	QCNCW010LAWZZ	J	AD	Socket,11Pin
CNW3	QCNWN0288SJZZ	J	AE	Flat Cable,16Pin
CNW607/CNS607	QCNWN0291SJZZ	J	AE	Connector Ass'y,3/3Pin
CNW701/CNS701	QCNWN0271SJZZ	J	AD	Connector Ass'y,2/2Pin
CNW702/CNS702	QCNWN0269SJZZ	J	AG	Connector Ass'y,15/15Pin
CNW703/CNS703	QCNWN0293SJZZ	J	AG	Connector Ass'y,13/13Pin
CNW704/CNS704	QCNWN0297SJZZ	J		Connector Ass'y,2/2Pin
CNW707/CNS707	QCNWN0125SJZZ	J	AE	Connector Ass'y,3/3Pin
CNW803/CNS803	QCNWN0252SJZZ	J	AE	Connector Ass'y,6/6Pin
CNW804/CNS804	QCNWN0290SJZZ	J	AD	Connector Ass'y,2Pin
CNW805/CNS805	QCNWN0296SJZZ	J	AE	Connector Ass'y,3/3Pin
CNW806/CNS806	QCNWN0270SJZZ	J	AE	Connector Ass'y,3/3Pin
⚠ F651,652	QFS-D322BSJNI	J	AC	Fuse,3.15A/125V
⚠ F653	QFS-D162BSJNI	J	AE	Fuse,1.6A/125V
J601	QJAKM0001SJZZ	J	AG	Jack,Headphones
J801	VHPPLT130T2-1	J	AM	Jack,CD Degital Output
LCD701	RV-LX0012SJZZ	J	AR	LCD Display
LMP701	RLMPP0001SJZZ	J	AT	Lamp
M801	RMOTV0004SJM1	J	AM	Motor with Gear [CD Lid]
NM801	RMOTV0409AFM1	J	AN	Motor with Gear [Sled]
NM802	RMOTV0408SJM1	J	AR	Motor with Chassis [Spindle]
NSW801	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]
⚠ RLY601	RRLYD0004SJZZ	J	AG	Relay
RX701	VHLN61V380A-1	J	AN	Remote Sensor
SO301	QTANC9003SJZZ	J	AF	Terminal,Antenna
SO401	QSOCJ0301SJZZ	J	AG	Socket,Video/AUX Input/Sub Woofer Out
SO601	QTANA0007SJZZ	J	AF	Terminal,Speaker
⚠ SO655	QSOCA0214AWZZ	J	AD	Socket AC Input
SW709	QSW-K0004SJZZ	J	AD	Switch,Key Type [POWER]
SW710	QSW-K0004SJZZ	J	AD	Switch,Key Type [CD Lid Open/Close]
SW711	QSW-K0004SJZZ	J	AD	Switch,Key Type [FF/Preset Up]
SW712	QSW-K0004SJZZ	J	AD	Switch,Key Type [CD Play/Pause/Tuning Up]
SW713	QSW-K0004SJZZ	J	AD	Switch,Key Type [Volume Up]
SW718	QSW-K0004SJZZ	J	AD	Switch,Key Type [Volume Down]
SW721	QSW-K0004SJZZ	J	AD	Switch,Key Type [Bass/Treble]
SW722	QSW-K0004SJZZ	J	AD	Switch,Key Type [Memory/Set]
SW725	QSW-K0004SJZZ	J	AD	Switch,Key Type [CD Stop/Tuning Down]
SW726	QSW-K0004SJZZ	J	AD	Switch,Key Type [REW/Preset Down]
SW727	QSW-K0004SJZZ	J	AD	Switch,Key Type [Function]
SW802	QSW-B0001SJZZ	J	AG	Switch,Lever Type [CD Lid]

CD MECHANISM PARTS

301	NGERH0586AFZZ	J	AC	Gear,Middle
302	NGERH0587AFZZ	J	AC	Gear,Drive
303	MLEVP0010AFZZ	J		Rail,Guide
304	NSFTM0291AFFW	J	AD	Shaft,Guide
305	PCOVP1333AFSA	J	AF	Cover,Mechanism
306	PCUSG0001AWSA	J	AD	Cushion (Green)
307	PCUSG0004AWSA	J	AD	Cushion (Red-Brown)
⚠ 308	DCTRH8005SJ01	J	BA	Pickup Unit Ass'y
308- 1	————		—	Pickup Unit (Not Replacement Item)
308- 2	NGERR0043AFZZ	J	AC	Gear,Rack
308- 3	NSPRC0961AFZZ	J		Spring,Rack
701	LX-WZ1070AFZZ	J	AA	Washer,ø1.5×ø3.8×0.25mm
702	XBBSD20P03000	J	AA	Screw,ø2×3mm
703	XBSSD26P06000	J	AA	Screw,ø2.6×6mm
704	XHBSD20P05000	J	AA	Screw,ø2×5mm
NM801	RMOTV0409AFM1	J	AN	Motor with Gear [Sled]
NM802	RMOTV0408SJM1	J	AR	Motor with Chassis [Spindle]
NSW801	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]

CABINET PARTS

200	GCABA1062SJSA	J	AM	Front Cabinet
201	GCABB1062SJSA	J	AL	Bottom Cabinet [XL-3000]
201	GCABB1066SJSA	J		Bottom Cabinet [XL-3000C]
202	GCOVA1006SJSA	J	AK	Rear Panel [XL-3000]
202	GCOVA1010SJSA	J		Rear Panel [XL-3000C]
203	GCOVA1005SJSA	J	AE	Cover,Remote Sensor
204	GFTAT1008SJSA	J	AN	CD Lid
205	LANGQ0002SJFW	J		Lug
206	HDECQ0050SJSA	J	AM	Clear Panel,CD Lid
207	HDECQ0051SJSA	J	AE	Clear Panel,Display
208	JKNBZ0055SJSA	J	AF	Knob,Operation A
209	JKNBZ0056SJSA	J	AF	Knob,Operation B
210	LANGF0033SJFW	J		Bracket,Main PWB
211	LANGF0034SJFW	J		Bracket,Tuner PWB
212	LANGF0035SJFW	J		Bracket,Gear Box
213	LANGK0025SJFW	J	AE	Bracket,Tuner PWB
214	LANGK0026SJFW	J		Cover,Lamp
215	LCHSM0014SJFW	J	AH	Chassis
216	LHLDW1001SJZZ	J	AD	Nylon Band
217	LHLDZ1033SJSA	J	AD	LCD Holder,A
218	LHLDZ1034SJSA	J	AD	LED Holder
219	LHLDZ1035SJSA	J	AE	Gear Box
220	LHLDZ1036SJSA	J	AE	Lid,Gear Box
221	LPLTP0001SJSA	J	AE	Cam Plate
222	MLEVP0006SJSA	J	AE	Rotate Lever,CD Lid,Left
223	MLEVP0007SJSA	J	AE	Rotate Lever,CD Lid,Right
224	NGERW0004SJSA	J	AE	Drive Gear,A
225	NGERW0005SJSA	J	AE	Drive Gear,B
226	NGERW0006SJSA	J	AG	Drive Gear,C
⚠ 227	PCOVW1014SJZZ	J		Fuse Cover [XL-3000C Only]
228	PCOVU9002SJZZ	J	AB	Felt,CD Lid Cover
229	PCOVZ1005SJSA	J	AE	Indicator Panel
230	PCUSG0003SJZZ	J	AC	Cushion,Leg

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
231	PGUMS0002SJZZ	J		Cushion,CD Lid
232	PRDAR0044SJFW	J		Radiator,Main
233	PRDAR0038SJFW	J		Radiator,Transistor
234	PREFL0001SJSA	J		LCD Diffusion Plate
235	PSHEP0003SJZZ	J	AE	Sheet,LCD
236	PSHEP0004SJZZ	J	AD	LCD Reflect Paper
237	QFSHD0001AWZZ	J	AB	Holder,Fuse
238	TLABS0004SJZZ	J	AC	Label,Laser
239	TLABS0036SJZZ	J		Label,Class 3A
240	TSPC-0229SJZZ	J		Label,Specification [XL-3000C]
240	TSPC-0243SJZZ	J		Label,Specification [XL-3000]
241	PCOVS3005SJFW	J		Plate,Shield
242	PSHEP0005SJZZ	J		Sheet,Shield
243	LANGJ0002SJFG	J		Connection Boss
244	PCOVQ1001SJSA	J		Cover,Radiator
601	LX-EZ0001SJFN	J	AB	Screw,ø2.5×10mm
602	LX-WZ7094AFZZ	J	AA	Screw,Special Type
603	XEBSD25P08000	J	AA	Screw,ø2.5×8mm
604	XEBSD25P10000	J	AA	Screw,ø2.5×10mm
605	XEBSD25P12000	J	AA	Screw,ø2.5×12mm
606	XEBSF25P08000	J	AA	Screw,ø2.5×8mm
607	XHBSD20P05000	J	AA	Screw,ø2×5mm
608	XHBSD30P06000	J	AA	Screw,ø3×6mm
609	XHBSD40P08000	J	AA	Screw,ø4×8mm
610	XJBSD30P06000	J	AA	Screw,ø3×6mm
611	XJBSD30P08000	J	AA	Screw,ø3×8mm
612	XJBSD30P10000	J	AA	Screw,ø3×10mm
613	XJBSD30P14000	J	AA	Screw,ø3×14mm
614	XJBSF30P08000	J	AA	Screw,ø3×8mm
615	XJBSF30P10000	J	AA	Screw,ø3×10mm
616	XJBSD30P18000	J	AA	Screw,ø3×18mm

SPEAKER BOX PARTS

901	CPNLS1006SJ01	J	AS	Front Panel Ass'y
902	GBOXS0009SJSA	J	AZ	Box Ass'y
903	GWAKP1016SJ01	J	AM	Net Flame Ass'y
904	PDUC-0001SJZZ	J	AE	Duct Pipe
905	PGUMM0003SJSA	J	AD	Net Catcher
906	PSPAG0002SJZZ	J	AD	Gsket
907	QTANA9011SJZZ	J	AE	Terminal
908	TSPC-0225SJZZ	J	AD	Label,Specification
909	92LHSY042SPK07	J		Capacitor,3.3 μF,50V (N.P.)
910	XTBSF40P12000	J	AA	Screw,ø4×12mm
SP1,2	RSPA00006SJZZ	J		Woofer
SP3,4	RSPA00004SJ6T	J	AK	Tweeter

PACKING PARTS [Except for U.S.A.]

	SPAKA0058SJZZ	J		Packing Add.,Left
	SPAKA0059SJZZ	J		Packing Add.,Right
	SPAKA0068SJZZ	J		Packing Add.,Speaker [Top/Bottom]
	SPAKC0166SJZZ	J		Packing Case
	SPAKS0001SJZZ	J		Sleeve Carton,Speaker
	SPAKZ0008SJZZ	J		Polyethylene Bag,Speaker
	SPAKZ0030SJZZ	J		Pad,Accessories
	SPAKZ0064SJZZ	J		Polyethylene Bag,Unit
	SSAKA0002SJZZ	J	AE	Polyethylene Bag,Accessories
	TLABE0080SJZZ	J		Label,Bar Code [XL-3000C]
	TLABN0125SJZZ	J		Label,Serial No.
	TLABZ0015SJZZ	J	AC	Label,VJ No.
	TLABZ0038SJZZ	J	AC	Label,Energy

ACCESSORIES

⚠	QACCD0001SJ00	J	AQ	AC Power Supply Cord
	QANTL0001SJZZ	J	AK	AM Loop Antenna
	QANTW0002SJZZ	J	AH	FM Antenna
	QCNWH0005SJ01	J		Speaker Cord
	PCUSG0009SJZZ	J		Cushion Leg
	RRMCG0029SJSA	J	AS	Remote Control
	GCABB1064SJSA	J		Battery Lid,Remote Control
	TINSE0060SJZZ	J	AE	Operation Manual [XL-3000]
	TINSK0028SJZZ	J		Operation Manual [XL-3000C]
	TINSZ0096SJZZ	J		Quick Guide [XL-3000]
	TINSZ0112SJZZ	J		Caution Sheet

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~8	DCEKLV025SJ03	J		Main/Tuner/Display/Terminal/ Switch/Led/Lamp/Holder
⚠ PWB-B	DCEKJV025SJ03	J		Power
PWB-C	QPWBF3895AFZZ	J	AC	CD Motor (PWB Only)

OTHER SERVICE PART

	UDSKA0004AFZZ	J	AZ	CD Pickup Lens Cleaner Disc

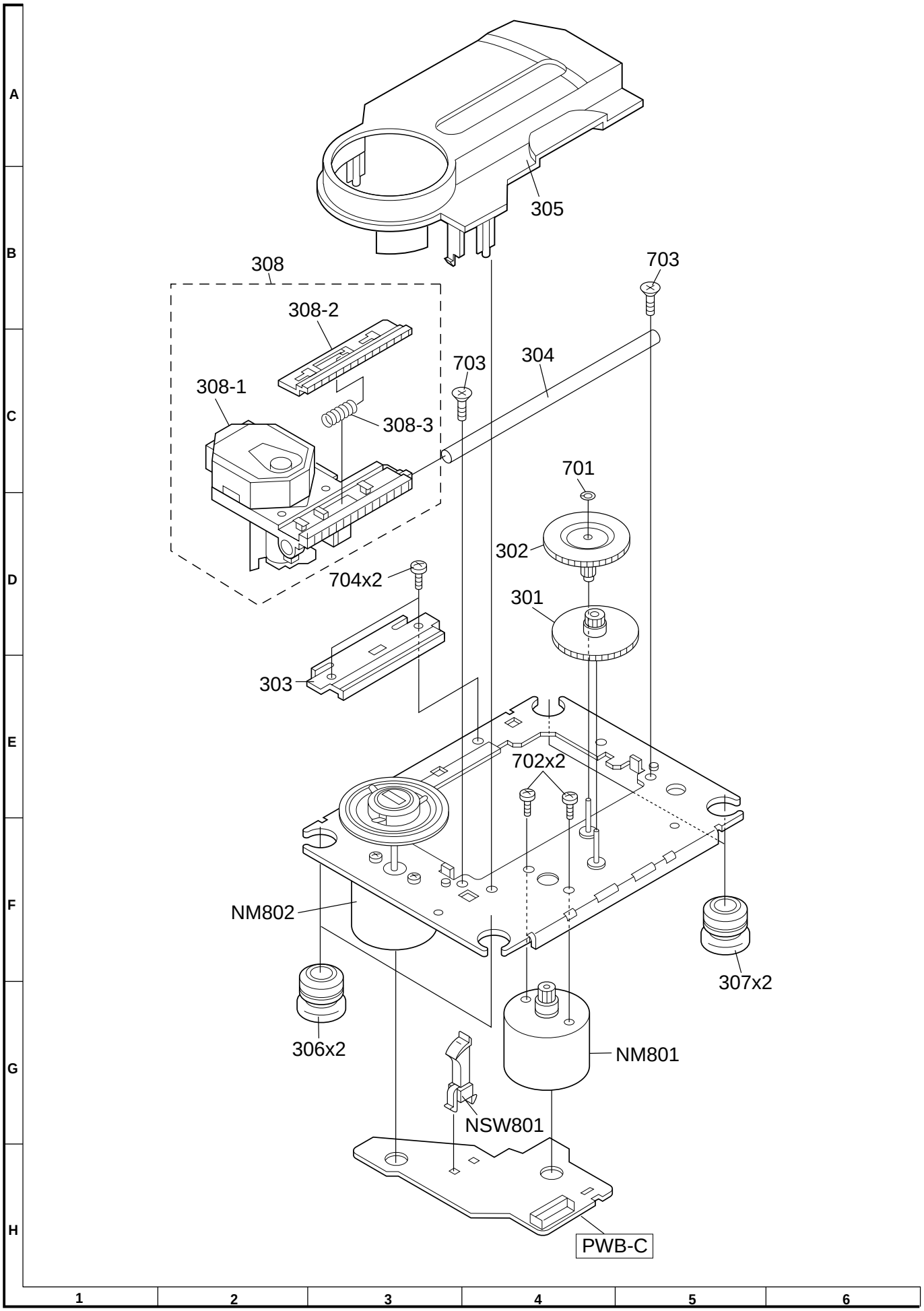


Figure 6 CD MECHANISM EXPLODED VIEW

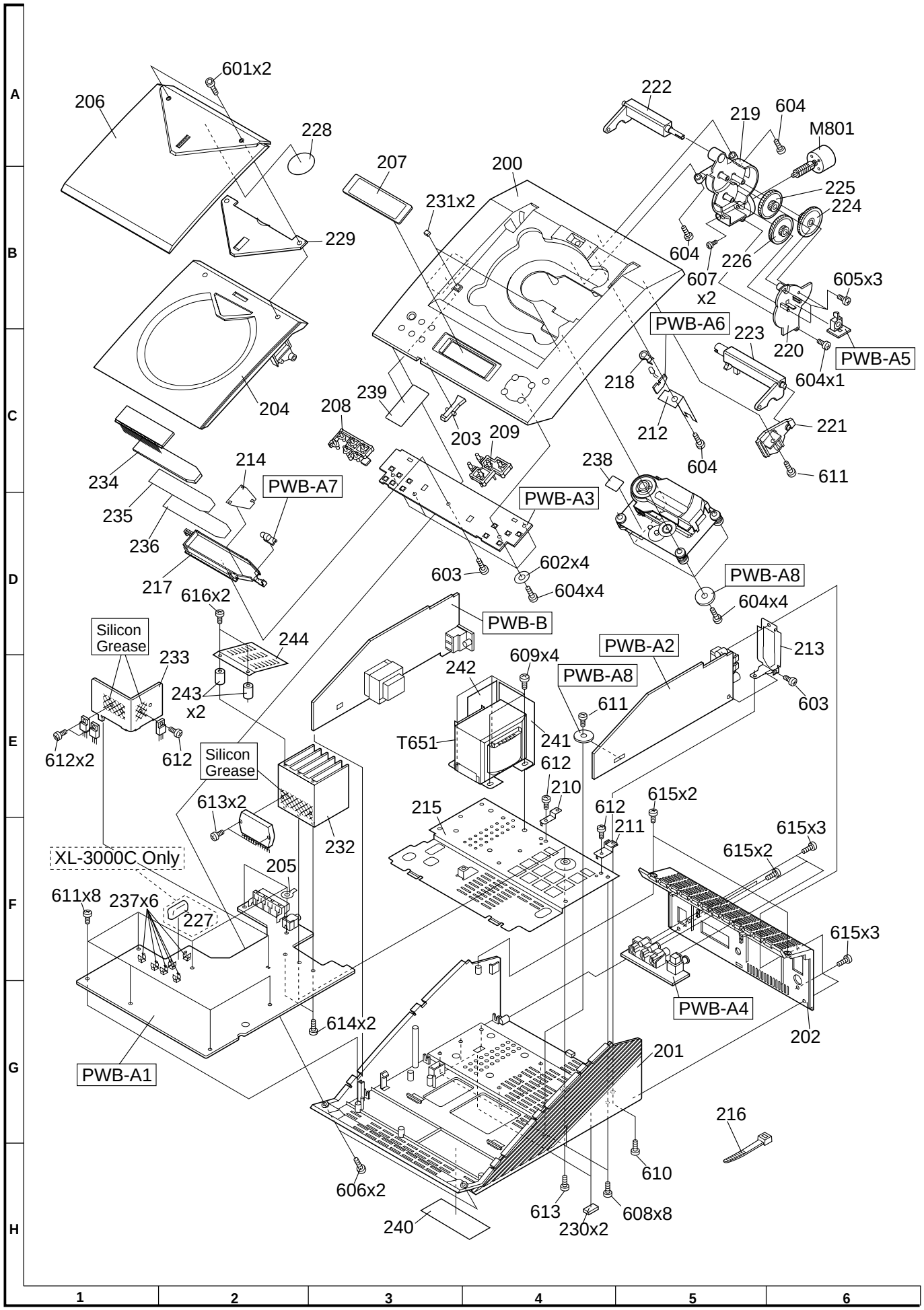


Figure 7 CABINET EXPLODED VIEW

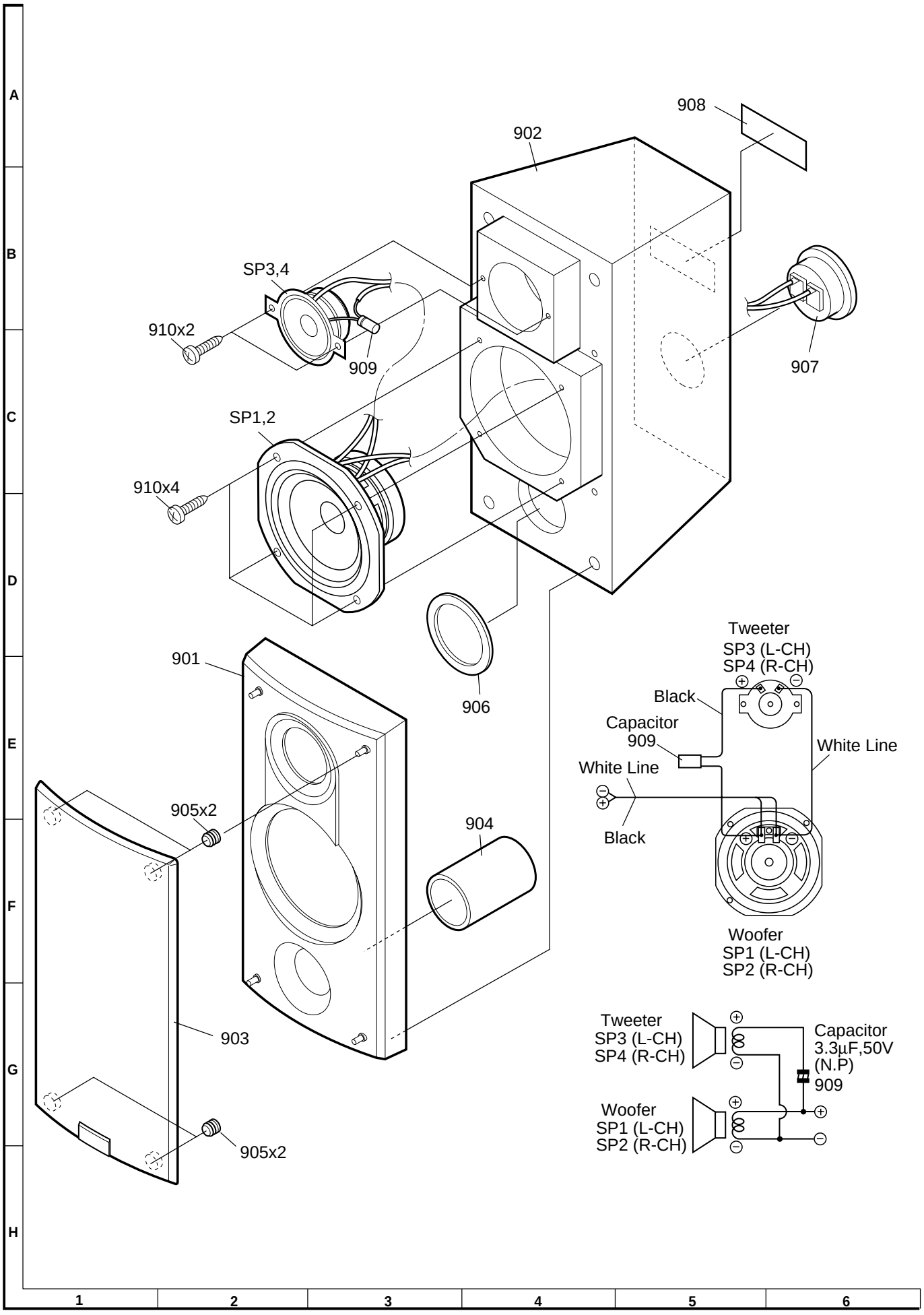
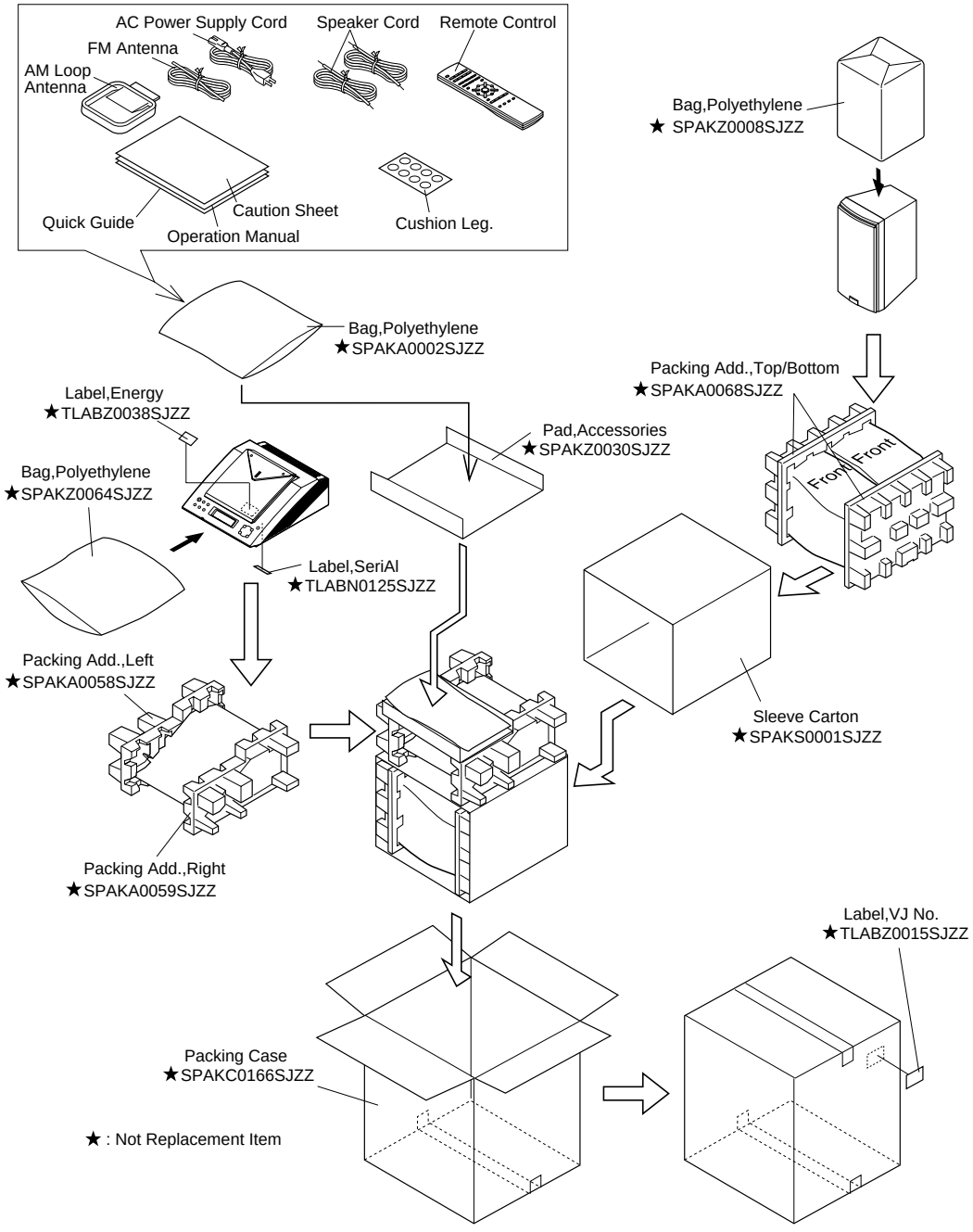


Figure 8 SPEAKER EXPLODED VIEW

PACKING OF THE SET (FOR U.S.A. ONLY)

Setting position of switches and knobs	
CD Lid	CLOSE



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